

# THE FAR EASTERN REVIEW

FOUNDED BY GEORGE BRONSON REA  
37TH YEAR OF PUBLICATION

*In This Issue*

TEA LEAVES FROM  
LO PAT'S GARDEN

ELEMENTS OF CONCORD AND DISCORD  
IN ASIA

TOKYO IN THE SHADOWS OF WAR IS  
CALM

THAILAND AND JAPAN

上海黃浦灘念四號

遠東時報

Vol. XXXVII

AUGUST, 1941

No. 8





# SOUTH MANCHURIA RAILWAY

*Head Office :* DAIREN

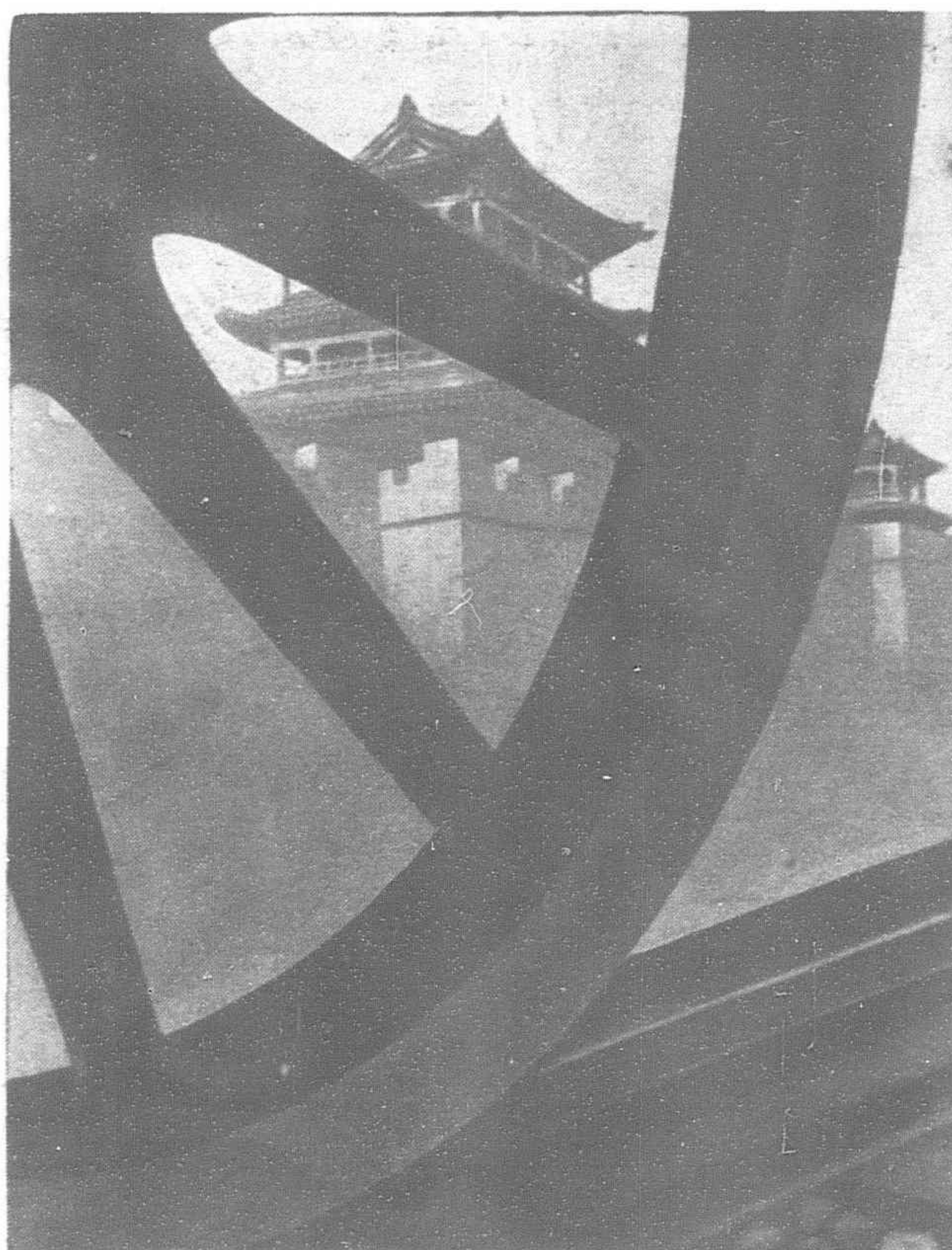
*Cable Address :* " MANTETSU "

*Codes :* ABC 5th Ed., Al,  
Lieber's & Bentley's

IMPORTANT OVERLAND LINK BETWEEN EUROPE AND THE FAR EAST

**From BERLIN to DAIREN in only 10 DAYS**

The fastest and most comfortable trains in the Far East carry you to the much-talked-of Cross-Road of East Asia "Manchoukuo."



## YAMATO HOTELS

at Dairen, Hoshigaura (Star Beach), Ryojun (Port Arthur), Mukden, and Hsinking are directly managed by the South Manchuria Railway Co.

## TICKET AGENTS

Tickets are issued by, and Pictorial Guide Books and Information may be obtained, at the following offices:

Messrs. The Japan Tourist Bureau; Thos. Cook and Son; The American Express Company; The International Sleeping Car Company ("Wagonlits"); The Nordisk Resebureau.

*S.M.R. Branch Offices* { Tokyo, Osaka, Shimonoseki, Shanghai, Peiping, Mukden, Hsinking,  
Kirin, Harbin, Paris, New York, etc.



# The Far Eastern Review

ENGINEERING

FINANCE

COMMERCE

Vol. XXXVII

SHANGHAI, AUGUST, 1941

No. 8

## FAR EASTERN CROSS-CURRENTS

Britain, the British Empire and the United States, moving so quickly that the whole world was astonished, despite the fact that retaliatory measures had been expected, hit back at Japan on July 26 for the latter's occupation of bases in Southern Indo-China by freezing all Japanese assets in their respective territories. Announcements of the freezing orders came from President Roosevelt at his Hyde Park estate, where he was spending the week-end and, later, from Mr. Mackenzie King, Canadian Prime Minister, London, South Africa, India, and the Straits Settlements.

In Tokyo Sir Robert Craigie, British Ambassador, notified the Japanese Government that Britain had decided to abrogate the Anglo-Japanese Treaty of Commerce and Navigation of April, 1911, and agreements relating to Japan—India trade relations of July, 1934, and Japan—Burma trade relations of June, 1934.

China, at the request of General Chiang Kai-shek, was included in the American freezing order. In London the Netherlands Government are consulting N.E.I. authorities about measures to be taken.

It is pointed out in London, states Reuter, that Japanese trade with Britain and the British Empire has fallen off enormously during the present war as a result of the blockade and general disturbance of communications.

Only one Japanese bank remains in London—the Yokohama Specie Bank—compared with four when the war began. Others closed through lack of business and members of their staff, together with a considerable number of Japanese engaged in trade, returned to Japan last year. The number of Japanese subjects now in Britain is probably less than 500. The new economic measure will not affect them personally.

These measures are directed solely against international transactions. A Japanese economic authority said: "The effect of the new measures will be comparatively small for our trade with Britain has dwindled to quite small proportions. In a lesser degree the same thing applies to the British Empire, but the United States is entirely different."

From the United States came a report that further retaliatory measures against Japan are likely to be carried out in view of the fact that the latter country managed to effect substantial withdrawals before the freezing order was made. In America the press saw in Pres. Roosevelt's order

the opening of a full-scale economic war and U.S. action was fully supported.

Retaliatory action by Japan was announced in Tokyo, where it was stated

### The Far Eastern Review Adopts Changed Format

In tune with the times, "The Far Eastern Review" announces a change in format which will be made in the next issue, the September number, of the Magazine. The shape and form in which this publication has appeared through the past thirty-seven years are being altered to conform with modern publishing trends and in consequence of the great changes that have been brought about in recent years.

To record the progress of engineering achievement in the Far East has been a major purpose of The Far Eastern Review through nearly four decades. Prolonged warfare that followed on the heels of a world-wide depression has brought in its train in the Orient as elsewhere a general disorganization of trade and industry with the result that construction and engineering developments have been hampered and brought to slow tempo in the Far East. Despite this, the economic phases of life in Far Eastern lands are of prime importance and these, it must be remembered, are closely interwoven with political developments in this part of the world.

In effecting a change of form, therefore, readers and advertisers are assured that no change of substance in the pages of The Far Eastern Review is contemplated. General economic phases will be given more emphasis than hitherto, and records of value to business leaders in engineering developments, industry and trade will be maintained. To make more complete this general service, editorially, the march of political events will be followed closely and major trends in political developments will be indicated and interpreted by authoritative writers.

The current publishing year of "The Far Eastern Review" will be concluded with this issue and a general Index covering the eight issues published in 1941 in the present format will be issued to subscribers. A changed publishing year will be adopted with the appearance of the September number, which will be Volume XXXVIII, No. 1.

that, effective immediately permission would be needed for transaction involving nations of the United States, American territories and the Philippines Commonwealth resident in Japan.

Japan apparently expected and was prepared for the action to some extent. This was evidenced by the hesitancy of Japanese ships to enter the United States and also by the disclosure there have been substantial Japanese withdrawals from United States banks the past three days.

There were indications the freezing order would be only the first in a series of economic blows. Similar action against Germany and Italy on June 14 was followed by closing of the United States borders to Axis nationals, preventing them leaving the country until they furnished proof of compliance with the order.

Some leniency was expected for Japanese applications for general licenses to meet customary business expenses, such as payrolls of Japanese firms in the United States, but applications of any importance will go before a government policy committee.

Informed sources said the impact of complete cessation of oil shipments to Japan would be heavy. During the first three months of 1941 exports included 1,932,000 barrels of crude oil, 1,097,000 barrels of gasoline, 1,102,000 barrels of gas and fuel oil and 241,000 barrels of residual fuel oil.

The Treasury Department immediately issued general licenses, the first of which were designed to prevent serious disruption of business between Hawaii and the Philippines, and Japan and China. One of the general licenses was granted for six banks in Hawaii and four in the Philippine Islands.

Another license authorized any businessman in the Philippines who was a Chinese or Japanese national to engage in all transactions incidental to normal business within the Philippines provided, however, that such transactions could not be carried on without licenses and that no withdrawals were made from any blocked accounts other than those in the Philippine Islands.

A general license was granted licensing all ordinary export-import transactions of goods, wares and merchandise between the Philippines and China and Japan with the same restrictions applicable as were included in other licenses.

A specific license was granted to 14 large banks for business within China, authorizing the banks to finance imports and ex-



ports between any parts of China—except Manchuria—and the United States, Latin-America, the British Commonwealth, Soviet Russia and the Dutch East Indies.

Officials said that China was included in the freezing order to prevent misuse of assets which may have come under Japanese control during the war, and also to catch any dummy Chinese holdings which may have been created by the Japanese controlled Governments.

At the same time, by placing Chinese and Japanese nationals under foreign property census, it was expected the Administration could obtain a far more complete picture of Japanese holdings in the United States.

In 1940, Japan imported U.S.\$227,000,000 worth of American goods while

the United States imported U.S.\$158,000,000 worth of goods from Japan.

United States investments in Japan were estimated by the Commerce Department to total U.S.\$217,000,000 including U.S.\$67,000,000 in short term holdings, U.S.\$45,000,000 in direct holdings and U.S.\$105,000,000 in Japanese securities.

The principal United States holdings in Japan consist of oil company properties and branch automobile factories. American business in Japan, however, will not suffer any sudden unexpected loss in retaliatory Japanese freezing orders because Japan has, in the past, maintained strict exchange control on foreign business.

The Treasury issued general licenses to offices of 14 well-known banking corporations of various nationalities

permitting them to finance imports and exports between any part of China except Manchuria and the American republics, the United States, the British Commonwealth of Nations, the Soviet Union and Netherlands East Indies.

These were: the Chase Bank, National City Bank of New York, The Underwriters Savings Bank, American Express Company, Moscow Narodny Bank, Ltd., Thomas Cook and Son (bankers) Ltd., the Hongkong & Shanghai Banking Corporation, the Mercantile Bank of India, David Sassoon and Company, Ltd., E. D. Sassoon & Company, Ltd., E. D. Sassoon Banking Company, Ltd., the Chartered Bank of India, Australia and China, Ltd., the Nederlandsch Indische Handelsbank, the Nederlandsche Handel Maatschappij.

## REACTIONS AFTER FREEZING ASSETS

### Reaction in Japan

The Japanese Government, in view of circumstances, is maintaining extremely close watch over all developments and contemplating all possible measures to cope with the situation, observers declared.

Well-informed quarters declared that the American freezing order, at this time, undoubtedly is an attempt on the part of the United States to check the progress of the establishment of a New Order in East Asia.

Recent extension of the Tokyo Government's control over foreign trade and exchange by revising drastically the exchange control law, and concentration of dollar exchange business in the Yokohama Specie Bank since July 1 were cited as proof of the Government's readiness to carry out "effective and appropriate" steps.

Observers pointed out that by irony of fate President Roosevelt's freezing order came exactly on the same date as the United States abrogation of the Treaty of Commerce and Navigation with Japan on July 26, 1939.

Meanwhile, a spokesman of the Yokohama Specie Bank expressed no surprise at Washington's announcement, declaring, "So it's come at last."

Differentiating between partial freezing as against Axis occupied territories, and general freezing as against Italy and Germany, the official said that if the freezing order was a general act, it will bring Japan's trade with the United States to zero, while if it is only partial, it will force traders to carry on commerce on a cash basis.

He asserted that in any case, the order is sure to affect the United States more seriously than any other freezing since Japan's trade with America is larger.

### Japanese Press Comment

The vernacular press in Tokyo, on July 28 almost without exception agreed that the United States freezing action was taken without giving due consideration to the effects of this act on herself and Britain.

Stressing repercussions on United States trade, the *Nichi-Nichi* editorially warned that the dollar had fled from Europe already, and next would likely flee from the Orient as well.

"Frankly, Japan desires that the United States would not take such measures," the *Nichi-Nichi* said, but if she does, reactions on the United States herself will be greater than bargained for.

The United States, which has great markets in the Far East, will have radically to alter the nature of her trade and adapt herself to the shrinking market, for "though it is a fact that Japan's dollar trade with third countries will lose its smoothness, it is also true that the international price of the dollar in the commercial field will weaken also."

The *Asahi*, striking a more pacific note, urged the United States and Britain to attempt to reach a deeper and more sympathetic understanding of conditions in China.

"There is no doubt that both Britain and the United States desire peace in the Pacific from the bottom of their hearts," the *Asahi* said, pointing out that lack of understanding in the past had driven Japan away from them and had made their own positions worse.

Continuing, the paper said that Washington's abrogation of the Treaty of Commerce and Navigation with Japan had led to the creation of the Tripartite Pact with Japan as a member of the Axis, while continued Anglo-American aid to Chungking was not calculated to help matters in China.

The paper urged the two nations to take a disinterested stand on developments in the Far East and try to understand "our nation's determination to settle problems peacefully. Is not that the entire key to the solution of Pacific problems?" the *Asahi* concluded.

### Japan Retaliates

Moving swiftly to retaliate against President Roosevelt's freezing order, the Japanese Finance Ministry announced

that permission will be needed for transactions involving nationals of the United States American territories, and the Philippines Commonwealth, resident in Japan.

The restriction will be enforced as follows:

- 1.—Acquirement or disposal of movable or immovable properties.
- 2.—Acquirement or disposal of credits.
- 3.—Transactions in trust, or movable or immovable properties or securities.
- 4.—Liquidation, contraction, or underwriting of debts.
- 5.—Financial and trust loans or their accommodation.
- 6.—Any transactions involving monthly sums in excess of ¥500.

Exceptions are provided in cases of tax payments and payments of salaries and wages to Japanese in the employ of American citizens involved, and also in exceptional cases specified by the Finance Minister.

Japanese nationals entering into the foregoing transaction with Americans will be required to report their properties within two weeks of the date specified by the Finance Minister.

### Action in N.E.I.

Following the example of the United States and Great Britain and the Empire, the Netherlands East Indies on July 28 froze Japanese assets in the N.E.I.—that is, all money and goods transactions with Japan will in future be controlled by special licenses.

It is announced, however, that "it is not the intention to hinder interior activity of Japanese enterprises in the N.E.I."

The Director of Economic Affairs told the People's Council, that starting at once provisionally:—

1. Foreign exchange between the N.E.I. and Japan are suspended.
2. All exports from the N.E.I. to the Japanese Empire, Manchoukuo, China and Indo-China are liable to special licenses.



3. Banks are forbidden to pay or receive values on accounts of Japanese subjects without special permits from the Director of Economic Affairs.

At the same time the Java Bank announced that yen quotations would be suspended.

Official figures of the Central Bureau of Statistics show what the embargo on imports and exports from and to Japan will mean to the N.E.I. although Japan relatively no longer takes such a prominent place as before among countries with which the N.E.I. has been trading, the country's business with Japan still represents an important factor, as shown by figures relating to imports and exports in the period from January until April last, inclusive.

During these four months, the N.E.I. imported 29,600,000 guilders worth of Japanese goods, compared with 31,700,000 guilders in the previous year.

Exports for the same period totalled 15,900,000 guilders compared with 16,400,000 guilders for the corresponding period the previous year.

N.E.I. imports from Japan in the period mentioned took second place after the United States, while N.E.I. exports to Japan ranked third after the United States and Singapore.

### Embargo On Oil

President Roosevelt on August 2 applied a virtual embargo on the export of all types of motor fuel and lubricating oils to Japan in what was described by authoritative sources here as a new blow at the Japanese war machine.

Without mentioning Japan by name—though the move was obviously directed at the Island Empire—the President shut off such shipments to “destinations other than in the western hemisphere, the British Empire and unoccupied territories of other countries engaged in resisting aggression.”

The President specifically ordered the existing embargo on aviation fuel and oil to be made absolutely air tight and also ordered that machinery be set up to place an embargo at will on all other types of petrol and oil.

The only loophole for other oil supplies to Japan was thus left ready to be shut immediately when and if he deemed such an absolute embargo to be necessary.

A spokesman of the Office of Export Control said that the order was prompted by reliable information that Japanese and German bombers were using low grade aviation petrol containing an octane percentage much lower than in the fuel mentioned in the President's original embargo, which applied only to aviation petrol, which contained an 87.5 octane percentage.

The President left the door open for continued oil shipments to Japan—enough to keep her non-military industries functioning—by limiting the exportation of “other petroleum products to usual pre-war quantities” on a *pro rata* basis and subject to the issue of export licenses.

The Export Control spokesman said that this meant that Japan or any other

prescribed nation could obtain certain oils, such as crude, for furnaces, but only in quantities necessary for their industries and at the will of the President.

Thus, he explained, if Japan persisted in her aggressive ventures in East Asia, President Roosevelt, by refusing export licenses, could dry up Japan's entire oil supply in the United States and bring her industries to a virtual halt.

### Secret Four-Point Pact

Informed sources in Washington declared on August 1 that an understanding has been reached between America, Britain, China and the Netherlands East Indies concerning action in the event of a Japanese southward attack. Details of the alleged understanding were kept secret.

It was understood, however, that a drastic embargo as well as mutual use of military and naval bases would go into operation in case the United States, Britain, and the N.E.I. is involved in a war with Japan, under the clauses of the understanding.

Discussions were also said to be underway between Britain and the United States on plans to tighten economic pressure if Japan moves on Thailand. Talks on the subject were held between President Roosevelt and Lord Halifax, British Ambassador to Washington.

The British, it was stated, are working day and night to develop air-fields and other defenses in the Malay Peninsula against an over-land attack on Singapore from Thailand, and Washington quarters believe that Britain would immediately enter into a war with Japan if the latter attacked the Indies.

The United States, it was stated, has also assured the Indies of immediate American aid in case of attack. The extent and nature of the aid was kept a military secret.

A bright spot was seen in the Far Eastern picture over the prompt manner in which Japan settled the *Tutuila* incident to the satisfaction of the American Government.

### U.S. Far East Army

All “organized military forces” of the Philippine Government have been called by President Roosevelt into the armed services of the United States. The Philippine forces will be placed under an American Army officer, with the rank of general, who will designate the time when individual Philippine units and personnel shall be taken into the United States' armed forces.

No immediate official explanation of this step is forthcoming, but it is generally regarded as another indication of the United States' displeasure concerning Japan's moves in the Pacific.

About 150,000 trained and partly trained Filipinos are affected by President Roosevelt's order. They are subject to the orders of Major-General George Grunert, of the Far Eastern Archipelago.

It is learned in well-informed quarters that the agreement to make the order

effective when necessary was worked out by the United States High Commissioner, Mr. Francis B. Sayre, and Mr. Manuel Quezon, President of the Philippines.

President Roosevelt has created a new Army Command, to be known as the “United States Forces in the Far East,” the War Department also stated yesterday.

General MacArthur, former Chief-of-Staff of the United States Army and present military adviser to the Philippine Commonwealth Government, has been named commander of the new U.S. Army unit.

He will command all United States as well as Philippine forces with the temporary rank of Lieutenant-General.

### Anglo-Soviet Co-operation

Britain's co-operation with the Soviet Union in the Far East must be considered possible since Britain and the Soviet Union have concluded a military alliance, Mr. Koh Ishii, Deputy Spokesman of the Tokyo Information Board, told foreign correspondents when questioned regarding the effect of Mr. Anthony Eden's statement that Britain was co-operating with the Soviet Union in the Far East.

Mr. Ishii observed that England was “very friendly” toward the Soviet Union. He refrained, however, from further comment pending receipt of the text of Mr. Eden's statement.

Asked whether or not Russia's co-operation with Britain against Japan would conflict with the Japan-Soviet Neutrality Pact, Mr. Ishii said “That would be a question. Should Soviet Russia co-operate with Britain against Japan?”

Further queried regarding the reported co-operation among Britain, the Soviet Union and Chungking against Japan Mr. Ishii replied “We are keenly interested in the question. We must wait and see its result.”

### America Prepared

President Roosevelt's embargo on shipments of aviation gasoline and lubricants to Japan showed that American military and naval preparations are so far advanced that the Government is no longer afraid of any forceful measures that Tokyo might take in retaliation against United States moves, political authorities declared.

These quarters said that the United States obviously was not seeking trouble with Japan, but felt itself strong enough now to feel entirely free to take steps which might be calculated to curtail Japanese freedom to attack friends of the United States or American vital interests in the Pacific.

This impression was especially strong in view of President Roosevelt's disclosures a few days ago that until that time the United States had avoided an oil embargo lest such restrictions incite Japan to violence in the area enclosing critical interests of the United States and the other democracies.



Political experts said that announcement of the embargo showed that President Roosevelt no longer felt it necessary to be so careful. Experts said that this no doubt was because of the close collaboration evolved in recent weeks among British, Netherlands and United States forces in the Pacific and the strengthening of their military forces.

Experts also stated that, in addition, Soviet Russia's strong resistance to the German invasion and the co-operation among Russia, Great Britain and the United States were factors supporting President Roosevelt's position.

Washington diplomatic experts, including those of some foreign nations said that the factors leading President Roosevelt to take his embargo decision almost certainly included some of the following:—

- (1) Reports that the Japanese have demanded bases from Thailand;
- (2) The American public's bitterness over the fact the *Tutuila* was bombed by Japanese planes fueled presumably with United States manufactured gasoline;

(3) Persistent Chinese requests that the United States cease supplying Japan with fuel which enabled Nippon planes to attack Chungking;

(4) Soviet Russia's need for aviation gasoline, as disclosed by the statement by Mr. Harold Ickes, Oil Administrator, that 10,000 drums would be prepared to transport aviation fuel to Russia, and that two tankers probably would be assigned to carry oil to Russia.

## JAPANESE-AMERICAN RELATIONS

### Sounds Warning

Commenting on the United States Government's decision to send aid to the Soviet Union, via the Pacific, as announced by Mr. R. K. Davies, Deputy Petroleum Co-ordinator, the popular Tokyo daily *Yomiuri* editorially warned that Japan as a signatory of the Tripartite Pact could not remain aloof to action in the Pacific for such purposes.

The visit to Moscow of Mr. Harry Hopkins, United States Lease-Lend Administrator and President Roosevelt's personal envoy, as well as the arrival of high Soviet officials in Washington, was proof of the increasing close collaboration between the United States and the Soviet Union, the *Yomiuri* asserted.

"These developments should be watched as closely as possible as they indicate an American attempt to bring the Soviet Union into the Anglo-American camp against Germany in Europe and Japan in the Far East," the *Yomiuri* warned.

The paper declared that there was no doubt that the United States wished to obtain certain military concessions on the Kamchatka peninsula in view of her past efforts to strengthen her defenses in Alaska and the Aleutian Islands.

### Hits Welles' Statement

A smooth explanation too often covers the roughness of truth, the *Japan Times and Advertiser* editorially declared when commenting on Mr. Sumner Welles' July 25 statement saying that Japan had not and was not being denied the purchase of tin, rubber and oil in the Pacific regions.

Pointing out that on paper it looked as if all countries had equal opportunity to buy raw materials from Malaya, the *Times* declared, "The purchase was by license. All could ask but few got goods—except a favored few—as far as Japan was concerned she always had been flatly refused and a *de facto* embargo was enforced."

The United States on the other hand had created a "reserve company" in Malaya which monopolized all rubber, tin and other raw materials with the full support of the local Government authorities, the *Times* said, adding, "In other words Japan could go and buy

all she wanted but she would just find all stock already disposed of by previous agreement to another customer."

Claiming that much the same situation was being worked out in South America by the British and American Governments the *Times* asserted, "The widespread effort to close all markets to Japan by buying up surpluses so the market can explain that it is sold out, will not convince many people that politics and economics in this case are not one."

The *Times* concluded, "If Japan is artificially excluded from sources of supply, it will be supported in its determination to build up a co-prosperity sphere where supplies can be assured and where markets for distribution to Japanese manufacturers likewise are certain. The shutting out of Japan merely hastens the course of self-sufficiency in the Pacific."

### "Ready To Stop"

The Japanese Government is ready to halt its southward drive and proclaim itself satisfied with the advantages obtained through the Franco-Japanese agreement of July 21 on condition that both Great Britain and the United States accept the *fait accompli*, according to well-informed Japanese quarters.

On the other hand, should the "encirclement" of Japan be continued in the southern Pacific and should economic sanctions be increased by an oil embargo Japan would be compelled immediately to examine preventive measures to escape economic suffocation.

It is stressed that if Great Britain and the United States wish to go on with their "policy of the big stick" then Japan can also use a big stick with which to retaliate.

To provide for such an eventuality and in order to protect communications with Indo-China, which can be considered Japan's "rice road," Tokyo's first concern will be to organize and equip the necessary land, air and naval bases for the "joint defense" of Indo-China.

The Japanese authorities will avoid all disputes with the French civil authorities who will be given a free hand in the administration of Indo-China.

In short, Japan desires to maintain peace in the Pacific but believes that the

best way to do this is to show her strength rather than engage in the path of conciliation.

It is in this spirit, it is said, that Japan is confident in being able to find a *modus vivendi* with the United States when the psychological effects of the freezing orders die down.

Japan's principal concern then would be to have her hands sufficiently free to be in a position to start out in any other direction should there be occasion to do so.

### Urges Changed Policies

The United States Government has taken drastic measures and is prepared to take even sharper ones against Japan, but it was evident that officials still hope Japan will recast her policies and co-operate with the U.S.

This apparent fact was implied by President Roosevelt's refusal to say definitely that oil will be embargoed, and also by the promise of Mr. Sumner Welles, Under-Secretary of State, that in present circumstances the United States will clear from her ports all Japanese ships now at sea.

Other responsible quarters said that the United States definitely would welcome Japanese co-operation, and expressed their opinion that it was not too late to avert a grave clash provided that Tokyo received in a co-operative attitude a policy of collaboration with the other great naval powers, namely the United States and Britain.

These officials recalled that under such a policy Japan prospered greatly and rose steadily in world prestige and power from 1911 until the period covering her recent denunciation of the Washington naval treaty.

Ever since Japan foresook this policy and launched attacks on her neighbors, her world position has become worse until at present the land of the Rising Sun is entirely isolated despite her adherence to the European Axis, it was added.

Isolation of Japan was the result of the basic geographic inability of the Axis powers to support Japan, whereas the sea power of Great Britain and the United States could co-ordinate shipping and supplies if only Japan was willing.

Authorities said it was hopeless at present to believe Japan would foresake



the Axis, but they believed that this would prove to be Japan's wisest course. They called attention to the fact that the Axis was encountering constantly greater difficulties in Soviet Russia, the Mediterranean and the Atlantic. Consequently, it was believed that a substantial body of Japanese leaders was considering the possibility of Japan returning to her traditional course of co-operation with the world sea powers.

#### "Tutuila" Incident Closed

Japan has promised a complete investigation of the bombing by Japanese aeroplanes of the American gunboat, U.S.S. *Tutuila*, at Chungking and has promised to make full indemnity for damage incurred, Mr. Sumner Welles, Under-Secretary of State, announced.

Mr. Welles, who earlier had indicated that the United States was not satisfied with Japan's informal apologies for the bombing of the gunboat, said that as a result of Japan's promises the incident was now considered closed.

#### May Destroy Oil Wells

Dr. A. Loudon, Netherlands Minister to Washington, declared that all oil wells and refineries in the Netherlands East Indies "will be effectively destroyed" to prevent them from falling into hostile hands in the event of an emergency.

Dr. Loudon said that arrangements to destroy the oil properties had been completed for some time and said these measures would be made effective as soon as there was any danger of a hostile nation seizing them.

The Dutch Minister made this statement after visiting Mr. Sumner Welles, Under-Secretary of State.

He said that Netherlands officials would show no hesitancy in destroying any vital industries if an emergency should arise. These plants would not merely be disabled. They would be effectively and completely destroyed.

#### The Indo-China Pact

Breaking the silence it had carefully maintained, the Japanese government, in a formal statement issued on July 26, officially confirmed that a complete agreement of views had been reached with the French government regarding joint defense of French Indo-China.

It was recalled that the Japanese government some time ago concluded a basic treaty with the Nanking government, and at the same time joined Manchoukuo and China in the issuance of a special statement, thereby establishing the foundations for a New Order in East Asia.

The statement of the Japanese government issued on July 26 declared: "Recent relations between Japan and French Indo-China have become more friendly as a result of the Matsuoka-Arsene-Henry agreement of August last year, and also through a series of other accords between Japan and French Indo-China.

"Indicating a further step in that direction, complete agreement has been reached between the Japanese and French governments, in friendly conversations, regarding joint defense of French Indo-China.

"While respecting her responsibilities ensuing from various agreements with France, especially from her engagement regarding full respect of the territorial integrity and sovereignty of French Indo-China, Japan is determined to make further efforts to promote friendly relations between herself and France, and to strive for the realization of the co-prosperity of both countries."

Meanwhile, the Foreign Office simultaneously issued a statement declaring: "Indo-China and Japan from olden times had been closely bound in cultural, historical and economic relations. Prior to the closing of the reign of the Tokugawa Shogunate here, there were two Japanese towns each in Annam and Cambodia, and very prosperous trade was carried on with Japan.

"However, these relations were interrupted when the Shogunate prohibited Japanese from going abroad. In recent times Indo-China has re-established its old relations with Japan in a new sense as a source of materials for the industries of Japan.

"Renewed relations have of late steadily become closer and more cordial with Indo-China, constituting an important link in the sphere of common prosperity of Greater East Asia which Japan is endeavoring to establish.

"Fully appreciating such a close relationship of Indo-China to Japan and its importance, France definitely recognized the pre-eminent position of Japan in French Indo-China through an exchange of documents between the Foreign Minister, Mr. Yosuke Matsuoka, and the French Ambassador, M. Arsene-Henry, in August last year.

"Then in May this year she concluded with Japan an economic agreement and signed a protocol concerning political understanding, striving thereby to solidify good neighborly and amicable relations and to promote close political and economic relations between Japan and French Indo-China.

"However, the internal and external conditions of French Indo-China have recently been greatly affected by changes in the situation in Europe and East Asia with increasing signs that even the security of French Indo-China was being threatened if such developments were left alone.

"If by any chance the situation would so develop that French Indo-China be thrown into a chaotic condition, it cannot, in self-defense, be overlooked by Japan, not to mention France herself.

"It had been keenly felt, therefore, by both Japan and France that they were bound by a very close relationship, as well as interest with regard to the position of French Indo-China.

"From such a point of view the Japanese Government since a short time ago carried on negotiations through the Japanese Ambassador in France, Mr. Sotomatsu Kato, with the Government at Vichy.

"These negotiations progressed smoothly in an extremely friendly atmosphere, and on July 21 complete agreement in views was reached between the Governments of Japan and France concerning their joint defense of French Indo-China.

"Japan and France have thus been ushered into more intimate relations with each other, with French Indo-China serving as their connecting link.

#### Vichy Announcement

The French Foreign Minister in a communique announced conclusion of a Franco-Japanese agreement for mutual defense of Indo-China on July 26.

The communique said that military and technical accords were not completed but were still being examined.

French authorities insisted that the final defense plan respects territorial integrity of Indo-China and French sovereignty.

#### 40,000 Troops Land

With the official announcement that 40,000 Japanese troops landed on July 30 in southern Indo-China and that eight aerodromes are to be placed at Japan's disposal, it is now possible to give an account of recent events affecting the French colony.

The first thing that emerges is that the agreement originated and was concluded in direct negotiations between Vichy and Tokyo, only details of its application being discussed at Hanoi. Mr. Kato, Japanese Ambassador, and Admiral Darlan are said to have held their crucial meeting on July 19, the agreement being signed at Vichy. Admiral Decoux, Vichy's Governor-General here, saw Major-General Sumita, head of the Japanese military mission to Indo-China, three times before agreement was reached.

After that the Japanese moved quickly, while carefully guarded press announcements informed the Indo-China public of the trend of events.

Major-General Sumita left Hanoi for Saigon by plane on July 26 leaving only a skeleton staff representing the Japanese mission behind him. There has been no mention of naval concessions under the agreement, but it is popularly supposed, and not officially denied, that the Japanese will be permitted to station a limited number of warships at Camranh Bay, Saigon and Cap. St. Jacques.

Although Camranh is one of the finest natural harbors in the world, its port facilities are restricted.

The frequent references to the "joint defense" of Indo-China and the anti-British campaign raging in the press and wireless for the last few days seem to indicate where Indo-China stands, although it is emphasized that no threat is directed to any country.

The center of interest now moves to Saigon and the surrounding area, where a new distribution of military forces involved in the "defense" of the colony is being worked out. Simultaneously, the boundary commission is completing details of the recent cession of territory by Indo-China to Thailand. The former German Consul in Indo-China arrived at Saigon to participate in boundary commission's consultations.

It is emphasized at Hanoi that the facilities being granted to Japan in southern Indo-China are purely tactical, as the terms of the economic agreement between Japan and Indo-China have been and are being faithfully observed.



## THAILAND BECOMES MAJOR FACTOR

### Proposals to Thai

While authoritative quarters deny that Japan has offered Cambodia and Laos as a *quid pro quo* if Thailand would join her new order, well-informed observers believe that it is only a question of time before Japan sounds Thailand on proposals of some sort.

They consider it quite probable that Japan will shortly offer Thailand the world-famous Angkor Vah and the Indo-Chinese province of Laos in the belief that Siam would be very glad to have the former for sentimental reasons and the latter on internal political grounds.

The offer might be subject to two important conditions: 1. Japan shall have virtual monopoly of Thailand's rice, tin and rubber exports. 2. Temporary facilities shall be accorded Japan to use naval and air bases in Thailand.

It is emphasized, however, that whether Thailand would seriously consider such a conditional offer is another question, though her attitude will largely depend on that of Britain and the United States.

It is thought that Japan knows better than to assume that the walk-over of Vichy can be repeated in Bangkok, despite the fact that Japanese forces are now in position all along the eastern borders of Thailand. Thai leaders are closely following every facet of the Far Eastern crisis and the latest British and American reactions to it. They are fully alive to the fact that Britain and America would consider acceptance of any condition giving Japan a monopoly of Thai rice, tin and rubber exports as active assistance to a Japanese counter-blockade.

The second condition, in regard to the use of naval and air bases, would be regarded by Britain and the United States as abandonment of Thailand's neutrality.

Even if Thailand were prepared to discuss a modified form of the first condition, she could not easily be persuaded to commit herself on the second.

It is also equally probable that Japan would immediately ask Thailand to recognize Manchoukuo and the Nanking regime. This would be a feeler to see to what extent Thailand relies on the backing of other powers to resist pressure.

Following reports of Japanese pressure on Thailand, a communique has been issued reaffirming Thailand's foreign policy and declaring that Thailand has met with no pressure, economic or military, from any power, and has no anxiety whatever about being the object of military aggression by any foreign country.

The communique adds that Thailand will not be concerned in any dispute arising outside her borders, but will gladly carry on trade relations with foreign countries with a view to maintaining friendly relations with every country.

### Thailand to Resist

Thailand does not intend to yield bases within her territory to an outside power, a source close to the Premier told the United Press on August 8. Questioned concerning conflicting rumors of Anglo-Japanese requests for Thai military bases, the source said that the Government had no intention to yield if such requests come.

He said that Thailand was ready to resist any moves likely to impair Thailand's sovereignty and territorial integrity.

Thailand markets will not be closed to any country, certainly not to Britain who was always assured of as much supplies of Thailand commodities as she wanted, said Mr. Nai Vanich Pananonda, Thailand Director-General of Commerce, and one of the plenipotentiaries at the Tokyo mediation conference, in a press interview.

He denied that Japan has made any economic demands and explained that the Japanese spokesman probably meant the recent 10,000,000 ticals credit from the Thailand banking syndicate when he said yesterday that Japanese-Thailand economic negotiations were under way.

He emphasized that Thailand keeps an open door to all countries that trade with her and does not intend to accord special treatment to any one Power.

Questioned about possible Japanese demands for a monopoly on Thailand rice, tin and rubber, he said such action was "improbable." He pointed out that Japan was already buying large quantities of the commodities.

Thailand turned down Japan's request more than ten times before she finally agreed to recognize Manchoukuo, says the daily *Prajamitra*.

Thailand's assets and credits in foreign countries are safe and rumors alleging that they have been frozen by some countries are baseless, says the Thai Ministry of Finance. It is pointed out that Thailand reserves are held principally in Britain and America.

### Tokyo is Silent

Japanese official quarters continue to maintain silence concerning warnings from Washington and London regarding Thailand other than the admission made recently by Mr. Koh Ishii, spokesman for the Cabinet Information Board, that the ABCD Powers were attempting to encircle Japan. A certain well-informed quarters, however, said that since Japan has repeatedly declared that her policies toward Thailand are peaceful, it was unlikely that any Government statement would be forthcoming.

The *Kokumin Shimbun*, asserting that Anglo-American insinuations that Japan was menacing Thailand's independence constituted "too serious a matter to be ignored in silence," urged the Government to "break silence and

torpedo Anglo-American false propaganda."

The *Kokumin* said that in the event this silence was too long lasting, the impression would be created that Britain and the United States were speaking the truth, causing "a disturbing influence upon unsettled East Asia," notwithstanding the claim that Britain and the United States actually were menacing Thailand.

The *Nichi Nichi Shimbun* reported from Bangkok that Great Britain, according to Chinese sources, has urged Thailand to ban exports of rice, rubber and tin to Japan. Britain was said to be also demanding that Thailand refuse to grant military bases to Japan, that pro-Japanese Thai officials be ousted and that economic relations with Japan be terminated. In return, Britain will restore "certain" Burma territory to Thailand, it was said.

### Indo-China Bases Occupied

Japanese troops have now occupied all bases granted to the Japanese under the agreement with the Vichy Government for "joint defense" of Indo-China. The disembarkation of troops has been completed.

While Japanese troops began disembarking at Nhatrang on July 28, the first mass incursion in the Saigon area began on July 30, although General Sumita arrived from the north on July 26, with his staff and a few trucks.

The Saigon harbor is chock-a-block with Japanese transports, freighters and warships. About 25 transports already have arrived and buildings along the Bund, and large private residences have been taken over. The buildings of British concerns, however, have not been affected.

The Messageries Maritime liner, *Marechal Joffre*, is at a dock-side, accommodating Europeans evicted from the Majestic Hotel and elsewhere.

Outwardly, Saigon remains quiet and the behavior of Japanese soldiery is exemplary.

French troops and material are moving northwards, and all available rolling stock is being concentrated in the south, causing delays in the normal train service.

The services of Air France have been cancelled, due to lack of landing fields. Japanese fighters and trucks are at Tourane aerodrome.

Most of the Japanese air strength is believed to be concentrated for the time being at Nhatrang, and is estimated to vary between 250 planes and two squadrons of fighters and one squadron of bombers.

Japanese truck convoys are moving in a steady stream to Cambodia and two convoys of anti-aircraft and field guns have been seen moving northward.





A sense of humor  
Is good life insurance.

Suicide becomes ridiculous  
When we can see the ludicrous in  
ourselves.

Many of us think ourselves virtuous  
When we frown upon the pleasures of others.

Speed  
Is the intoxication of life.



The virtuous plan  
To make the world  
A better place to live in—  
The wicked plan  
Destruction—  
The other nine-tenths are busy  
Watching the passing show.

'Tis not only that we get more out of life  
Than did our ancestors  
But we put more into it.

In the wildest fancy of our grandsires—  
Even in their cups they could not experience  
Within a month what we squeeze into a single day.

Whether the men of old  
Took their Madeira and their  
Port  
To advance the sparking of  
their brains  
Or but to lose the sense  
of time—  
This and what is more  
Is ours without the  
wine.

Shame on unguarded lips  
E'en what is said be true—  
Bespeak no ill of anyone  
E'en ill they speak of  
you—



Even a woman unhappily married  
Will not believe that her unmarried friends  
Enjoy single blessedness.

When a woman says she would not marry  
Her friends think she  
Lacks opportunity.

Our judgment of our neighbor is  
A reflection of our character.

We may meet with our neighbor for years  
And know little of his nature  
Unless we play golf together.

The versatile  
Require diverse companionship.

It's inspiring when we earn  
More than we get.

Poverty is a cruel whip.

The watched pot may not  
boil  
But it takes a lot of watching  
To make the bank account  
sizzle.

When a woman says she would  
like to marry  
Her friends think she can  
but wont.



A man or woman who side-steps in  
marriage  
Must be unhappily mated.

There would be more reconciliations  
If those catching their partners  
slipping  
Would blame their own short-  
comings.





# Elements of Concord and Discord in Asia

By IPPEI FUKUDA

THE world crisis has turned a spotlight on many countries which in normal days were content to live in quiet undisturbed by intrigues of foreign governments. Thailand is a notable victim. As I write, press reports now converging on this out of the way Kingdom in South Asia are convinced that Japan's infiltration into the "powder keg" will surely bring war to the Pacific. Previously, Japan was given to understand that both Britain and the United States regarded the Netherlands East Indies as the ignition point any encroachment on which would spell dreadful consequences to the intruder and the implication was that they would not so seriously mind Japan's penetration, as far as French Indo-China and Thailand. I should not be surprised if some such piece of optimism is found in the file of advices from Japanese diplomats in the archives of the Tokyo Foreign Office.

However, conclusion of the Franco-Japanese agreement for joint defense of Indo-China was preceded by disquieting intimations from Washington and London. To Mr. Anthony Eden, British Foreign Secretary, Japan's move appeared to constitute a potential threat to British territories and interests in the Far East. Mr. Sumner Wells, U.S. Under-Secretary of State, echoed the protest by holding that the action was a direct threat to United States defense supplies and ultimately to the Philippines.

## Turning Up the Screws

"There was every indication in government quarters," warned a press report from Washington, "that economic reprisals would come swiftly once the nature of the Japanese move was determined." Freezing of Japanese assets in the United States went into effect on July 26, the very day the Vichy-Tokyo agreement was made public. In less than a week, President Roosevelt declared an embargo on shipments of aviation gasoline and lubricants to Japan, thus virtually putting an end to trade between the two countries.

Secretary of State Cordell Hull who had been away from Washington on a rest-cure, returned to his duties on August 4 with rumors of Japanese forces heading for the Thailand border ringing in his ears. A Tokyo radio commentator's repetition of the old warning in Japan that war might come at any moment put a new edge on the present uncertainty. To complete the picture of the touch-and-go situation in the whole hemisphere of Asia, both Japan and the Soviets are said to be strengthening their positions along the Siberian frontier.

Whether Japan will push to the north or to the south well into the "British territories and interests in the Far East" will in all probability have been unequivocally answered by fact by the time this article appears. In any case, it was in a milieu such as the foregoing that Konoye Cabinet No. 2 gave way to Konoye Cabinet No. 3 on July 18. The most noteworthy feature of the Ministerial change consisted in the absence in the incoming Government of Mr. Yosuke Matsuoka, the scene-grabbing Foreign Minister in the outgoing one.

Subsequent events occurring in and out of Japan leave little room for doubting that the ejection of Mr. Matsuoka was the major aim of this political scene-shifting in Tokyo. For some reason or another, Prince Fumimaro Konoye, Prime Minister, and his lieutenants seem to have come to regard their straight-from-the-shoulder Foreign Minister as rather more of a liability than an asset to their Cabinet. Although I am as yet unable to say whether Mr. Matsuoka went too far or didn't go far enough to keep in step with the rest of his colleagues in the Cabinet, I am dead certain that his retirement had something to do with Japan's decision to give the right of way to her aspirations for a seat in the South Seas.

## Matsuoka's Record

For the past ten years, Manchuria *per se* has always loomed big in Matsuoka's mental horizon: he fought for it at Geneva in 1933; he was President of the powerful South Manchuria Railway Company for a number of years. I do not mean to say that the

glamor of Manchuria and its many and portentous issues with its neighbor, Soviet Russia, proved too irresistible for him to court equally important possibilities in South Asia, for he it was who ironed out the border dispute between Thailand and Indo-China through mediation in February this year. He set out on his whirlwind trip to Berlin and Moscow a few days after the Thai-Indo-China agreement was signed. While in the Soviet capital, his eternal concern over Russo-Japanese complications made the Japanese Foreign Minister put a screw on Josef Stalin in respect of negotiations for a neutrality pact or a non-aggression treaty if possible. Back in Tokyo, Mr. Matsuoka was fêted by the whole nation as a hero. It is indeed very difficult to tell how the ovation died down so abruptly.

Undoubtedly, Mr. Matsuoka did his job well—better than most Foreign Ministers we have had in recent years. Had it not been for his successful deal with Moscow over the neutrality pact, the recent spread of war into the U.S.S.R. easily could have precipitated clashes between the Soviets and Japan. Once nations confronting one another within a stone's throw begin to make preparations for the worst, it generally means war in no time. It is true that the situation up in the north is awaiting a showdown. But it must be admitted in fairness that the Soviet-Japan neutrality agreement has staved off an immediate concussion. Both Moscow and Tokyo were thus given enough time to figure out things calmly, possibly with a mutual desire to avoid trouble if they could.

Quite recently, Dr. Quo Tai-chi, Foreign Secretary of "free China," referred to the frequency with which the Japanese Cabinet has changed since 1931. Well, in a time of war and upon the appearance of the Imperial Headquarters as a result, the reins of government in Japan pass into the hands of the Emperor both in theory and in practice. All important measures are brought up for discussion at conferences presided over by the Sovereign in person. They are called "Imperial conferences." The usual initiative which the Constitution confers upon the Prime Minister suffers a substantial shrinkage while a state of war exists.

## Significance of Changed Conditions

Foreign observers including the Chungking Foreign Secretary regard the Imperial conference as nothing more than a deliberative body. It is more than that: it is, in truth, an enlarged and all-powerful Government of Japan in a period of emergency. In other words, changes in or of the Cabinet lose much of the significance which they ordinarily have. But then I know of a good number of prominent Japanese, particularly in the much censured pro-Democracies circle in Tokyo, who would leave nothing undone to keep abreast with the march of events in Britain and the United States while, after four years of fighting, they wouldn't even take the trouble of looking at a map of China to find out where on earth Chungking or Nanking is.

Of course, we have "China experts." Lots of them. But those men are mostly engrossed with a China which no longer exists—a slow but ever intriguing China of the past. H.I.H. Prince General Asaka was very right when he thought upon his return from the front that the simple fact that hundreds of thousands of Japanese youth went to China to observe it on the spot would go farther than anything else in bringing about a lasting peace between the two neighbors based on a correct understanding of each other.

I do not agree with the popular belief that Mr. Yosuke Matsuoka, as Foreign Minister, was the hub of the pro-Axis front in the Government. Should later events show Japan receding, however slightly, from her present determination to support her Axis Allies at all costs, it should be ascribed to the loss to the third Konoye Cabinet of a thoroughbred Axisist, Mr. Toshio Shiratori. He resigned the post of Adviser to the Foreign Minister when the Cabinet change became inevitable. Any modification in Japan's stand *vis-à-vis* the Axis Powers seems to me highly improbable. An Ally has always meant to the Japanese what a brother means to a brother and no Cabinet can dare pursue a policy which in the eyes of the



nation would appear tantamount to a betrayal of their own kin and kith.

### The New Foreign Minister

I first met Admiral Teijiro Toyoda, new Foreign Minister, while he was Chief of the Naval Affairs Bureau. There were three of us in a private dining-room of the Navy Club, Tokyo—Admiral Kiyoshi Hasegawa, now Governor-General of Formosa, Admiral Toyoda and myself. After lunch the two navy men exchanged views on the relative strength of the foremost navies of the world. Toyoda did most of the talking fishing up quite offhand a formidable echelon of statistics to support his opinion on this or that. Not once did he get lost in the maze of figures he marshalled forth. It was a good education for me. I could see at once that his was a mind exceptionally well-oiled and smooth-running. And I found him agreeably modest and polite. These qualities of his are said to have made of him the finest and ablest Minister of Commerce and Industry in the second Konoye Cabinet that we have ever had. At his first conference with high officials of the Foreign Office on July 22, the new Foreign Minister is reported to have assured them that his policy would remain unchanged from that of Mr. Yosuke Matsuoka. If he did not qualify his remarks with some such truthful phrases as "for the time being," perhaps the omission was more due to his love of politeness than to any desire to fool them. But whatever changes he may put through will have ample reason to justify them. The Admiral is eminently open to reason.

When the United States gunboat, *Tutuila*, was reported damaged by a stray bomb during the Japanese air raid on Chungking on July 30, Admiral Toyoda lost no time in calling on Mr. Joseph C. Grew, American Ambassador in Tokyo, to express his regrets for the wrong done. I remember that in the early stage of the Shanghai battle my old friend, Admiral Hasegawa then Commander-in-Chief of Japan's China fleet, was as prompt in offering his apologies for a similar mishap befalling an American gunboat and her crew.

It is an unwritten law with our navy men to admit their mistakes if they are in the wrong with utmost frankness and sincerity whomever the wronged party may be. That, the first official act of Admiral Toyoda as Foreign Minister, had none of the fearless defiance which his predecessor, Mr. Yosuke Matsuoka, had radiated from start to finish, but it should by no means be interpreted either as a sign of weakness of the third Konoye Cabinet's foreign policy or as an index to pro-American proclivities of its Foreign Minister.

### Four Cabinet Posts

Up to the present, the Navy has been content to play second fiddle to the Army. Under no circumstances had the Navy ever sought to form a Cabinet of its own. The present Cabinet comes as an anomaly to the tradition with the Navy holding four key posts, namely Admiral Oikawa, Navy Minister, Vice-Admiral Masazo Sakonji, Minister of Commerce and Industry, and Admiral Toyoda who heads concurrently the Foreign Office and the Overseas Ministry. Their coming to the fore for the first time in our political history is significant.

None of these Admirals, however, is of the extremist type. The way, for example, Sakonji handled his difficult contact with the Soviet authorities as President of the North Saghalien Petroleum Company bears witness to his faith in moderation.

Running one's eyes across the logbook of the Japanese Navy, one finds among its leaders very few, if any, who would fit into the accepted characterization of an expansionist. For some years past, it is said, a subtle but relentless sorting process has been at work in the naval circle, culling from the payroll those who had advocated one imperialistic adventure or another. An Admiral who was found campaigning glibly for the multiple advantages of attacking Singapore is no longer in active service. The residuum after the operation is composed of quiet, determined men who are against rash moves.

True, a move southward in some form or another has long cast a spell on the Japanese Navy. As the bearded captains of Shoguns' merchant fleet of sampans responded to the call of the South Seas regardless of their most primitive way of navigation, so from the highest Admiral to the common stoker the entire naval forces of to-day react to this credo of theirs as one man.

### Back to Beginnings

It should be recalled that the first official reference to inclusion of those areas in the proposed new order in Asia was made by Mr. Hachiro Arita, Foreign Minister in the Cabinet of Admiral Yonai. Addressing the whole nation over the radio on July 29, 1940, Mr. Arita stated:

The countries of East Asia and the regions of the South Seas are geographically, historically, racially and economically very closely related to each other. They are destined to co-operate and minister to one another's need for their common well-being and prosperity, and to promote the peace and progress in their regions. The uniting of all these regions under a single sphere on the basis of common existence and the insuring thereby the stability of that sphere is, I think, a natural conclusion.

This statement came as a surprise to many and created a sensation in the rest of the world. On a yet grander scale was the sphere of co-prosperity Mr. Yosuke Matsuoka had in mind when he declared some months later that Oceania was to be thrown into the huge basket of Greater Asia. It seems quite likely that the straight-from-the-shoulder statesman didn't have time to look in his dictionary a definition of the term he thus inadvertently used. His observation was savagely lampooned in the press and legislatures of the Democracies.

"Inasmuch as the termination of the China Incident rests on our taking hold of Chungking's bottleneck in South Asia," writes Admiral Sankichi Takahashi, member on the Supreme War Council, in the October, 1940, issue of *Kaizo Magazine*, "the incorporation of those areas in the new order should seem a matter of decisive importance to our country." The United States' attempts to throttle Japan by recourse to economic sanctions are seen by the writer to result in further inciting Nippon to reach out for such raw materials in Indo-China, Thailand and the Dutch East Indies as she would be denied elsewhere. "What we want in the N.E.I.," he continues: "is a free market for all nations. As is well known, we need tin, rubber and oil and so does America. Far be it from us to stand in the way of Americans there: the archipelago has more dormant wealth than either Japanese or Americans would be able to develop single-handed. The reluctance of political Washington to realize the obvious advantages of free marketing in those essential materials over the state of chaos prevailing in the Dutch possession is truly unwarranted."

According to the latest news on the disputed areas, the use of gas warfare against an invader is threatened by Thailand. Belligerents or would-be belligerents in moments of exasperation are capable of all sorts of horrors known to man. General Chiang Kai-shek has reduced some of China's richest towns into patches of "scorched earth." And yet such acts of barbarism are at least understandable in a nation with its back on the wall. But no man in his senses would tolerate a similar scourge threatened by the rulers of the Netherlands East Indies. "The moment the first invader comes ashore," they assert: "Borneo's rich oil wells and pipelines would be dynamited. Thus the invader would acquire only a steaming jungle." I wonder if it ever occurred to them that, deprived of their principal source of livelihood by men not of their race or faith, 2,200,000 people of Borneo will have to stand the terrific consequences for centuries to come. If the threat is carried out, it would certainly mark a pathetic slump in the moral approach of those Hollanders who are responsible for the administration of the Dutch Colonial Empire.

### U.S. Naval Manoeuvres

The biggest war exercises in the history of the American west coast began at dawn on August 13 when a mythical invading fleet was sighted by the Los Angeles Coast Guard. There had been two days of a "war of nerves" while the attackers feinted obviously with the intention of spreading out the defenders.

Big guns at Fort Worden opened fire but the umpires ruled that the fort had been destroyed after 16 minutes. The imaginary fleet continued down the sound to Seattle. The huge McChord airfield and half the defending air force were judged to be destroyed.



# Tokyo in the Shadow of War is Calm

With Grim Stoicism the Nipponese Endure Hardship and Restrains and Carry On

By WILLIAM HOSOKAWA

FOR three long years the Japanese people pursued a war of major proportions on the assumption that it was merely an "incident." Like the British during the first nine months of the European war, they persisted in the belief that business could go on as usual, and thus they conducted their daily affairs as they always had done.

Suddenly, the Japanese, again like the British, woke up with the realization that wars are no longer fought on distant battlefields, but that it invades every home and affects everyone's normal mode of living. The Germans have proved to the world's satisfaction that the totalitarian state, bereft of all democratic impediments, is the most efficiently streamlined body politic for the pursuit of war.

So, like many another nation at war or still on the brink of a precarious peace, Japan is busy at work building up what is called the most efficient national defense state. Britain realized her error after the disastrous Western Front campaign. The United States profiting from Europe's mistakes is in the midst of creating a new economic structure stripped for wartime duty. And Japan, now in her fifth year of a war which continues to spread and gives no promise of coming to an end, is rushing along the same path.

It is extremely difficult, of course, suddenly to change a way of life, even if various spokesmen have reiterated time and again the magnitude of the task that lies before Japan. The immensity of the Greater East Asia Co-Prosperity Sphere in all its various ramifications is something that has just begun to strike home to the average Japanese whose outlook has been limited by a strong insular complex. Now that he sees a great empire in the making (economic and not political, the Japanese insist), there is something concrete, something which can be traced out on a map, to inspire new effort.

## People Grimly Calm

Yet the transition from the conditions under an "incident" to those involved under something infinitely more expansive cannot be and have not been smooth. My third visit to Japan in three years finds the country calm amid its multitudinous troubles, simply sitting tight and wondering what is to happen next. With events changing the world picture minute by minute it is impossible to say with any degree of accuracy what the people are doing, what they are thinking, or how this unprecedented emergency will turn out.

Generally, however, in the face of the possibility of war breaking out along the Manchoukuo-Siberian border, along the Indo-China-Thai border, or in the Pacific against the United States, or perhaps on all three fronts at once, a sort of Oriental fatalistic calm has spread over the country. A year ago many individuals with whom I talked thought Japan was on the verge of what might be termed a national nervous breakdown. The war in China was not going well then, conditions at home were becoming more difficult, and foreign opposition to Japanese policy was growing. Even nature seemed to be against Japan as droughts stunted the crops and caused an acute water and power shortage.

The winter, however, passed without the situation growing much worse. In fact last winter was easier on the whole than the year before because the Japanese had learned many lessons and the streamlined national defense state was beginning to operate.

To-day it is only too obvious that Japan's position, domestically and internationally, is more difficult than it has ever been. Yet the country gives an impression of being more orderly, more self-possessed, more able to stand the rigorous times ahead than it was a year ago.

There are economic difficulties, to be sure. The freezing of Japanese assets by the Anglo-American bloc of nations and the Japanese retaliation has effectively stopped foreign commerce and the large trading firms and shipping companies, manufacturers and producers for overseas markets find themselves sitting idle not knowing when they can start up again. But in view of restrictions

in force hitherto, the full impact of suspension of trade has not been brought home to the general public yet.

Domestically, it is not possible to adopt a policy of enforced scarcity in a "have-not" nation to curb inflation without running into inconvenient shortages. Complete rationing has not come to Japan yet, as it has to practically all of Europe, but there is partial rationing of many important commodities.

## The Neighborhood Groups

Neighborhood groups have been set up which distribute tickets entitling each household to purchase rice, towels, matches, sugar, flour, beer and sake, cotton and charcoal. Sale of sweets, noodles and bread are restricted. Outside of the sphere of everyday existence, such commodities as automobile tires, gasoline, metal parts and similar articles are rationed.

In some cases the trouble is in the distribution and shortage. Some localities may find themselves short of fish and vegetables during a period while other communities nearby are heavily oversupplied. Many parts of Tokyo were short of these products late in July while the Osaka district was well provided for. These kinks in the distribution system, however, are rapidly being ironed out.

No rationing is in effect in restaurants, however, and it is not uncommon to see whole families dining out to conserve supplies at home. On the other hand a system of controls has been instituted to restrict the consumption of foods outside the home. Rice and bread, for instance, may not be served outside of meal hours. Thus the hungry office worker seeking a snack between meals must satisfy himself with dishes not containing rice or bread. Beer and wine may not be served until 5 p.m.

All prices, including those of food, have been pegged. Dishes of ice cream may not cost over 13 sen, and their quality and quantity is regulated by law. Breakfasts may not cost over ¥1.50, lunches ¥2.50 and dinners ¥5.00. A special luxury tax of 15 per cent has been placed on all meals costing more than ¥3.50 so a person consuming a ¥5.00 dinner pays ¥5.75. Substantial meals may be had for these prices, and anywhere outside of the first rate restaurants it is difficult to eat *a la carte* as much as the law allows. But in case one cannot get his fill for the prescribed limit, there is nothing to stop him from going to another restaurant and starting all over again.

As in many parts of Europe, meatless days have been introduced to Japan. But instead of two or three such days per week, they are limited in Japan to the "8" days—the 8th, 18th and 28th of each month. However, households do not need ration coupons to buy meat on the day before to be served on the meatless morrow. Likewise no liquor is served on the first day of each month.

Gasoline, of course, is strictly limited and most of the taxis and buses have been converted to operate on gas from charcoal. While charcoal burners may not be so fast nor so smooth as gasoline operated vehicles, it remains that taxis and buses are plentiful and cheap. Tokyoites are prone to complain about the service since they remember the day when cruising taxis cluttered the streets and responded instantaneously to the uplifted finger. There are not so many taxis on the streets these days, and their radius of operation is limited, but they provide fast service in the downtown areas. Their minimum charge of 45 sen is in pleasant contrast to the \$5.00 minimum fare and tip in Shanghai to-day.

## Question of Inflation

The government so far has been highly successful in preventing inflation. The problem has been tackled from two angles. First, it is illegal to increase wages, so the general purchasing power is kept relatively at constant level. Then prices on practically all commodities have been pegged, either by official decree or by the



action of manufacturers and dealers. This has the effect of providing necessities at reasonable prices, and strict control prevents the inevitable tendency to deal on the black market.

Official manipulation has also prevented the tendency to hoard. Rice, for instance, is made so scarce in retail stores, and their distribution controlled by tickets, that it is not possible to accumulate any sort of store. For a while the shortage of cigarettes caused many individuals to hoard. The government stopped the trend by flooding the market first to show the public that supplies were plentiful, then instituting the custom of turning in an empty carton when purchasing a new one, and one pack to a customer. However, if one has ten empty boxes there is nothing to prevent him from buying ten packages, one at each of ten different stores.

And how has all this affected the morale of the public? One sees fewer young men on the streets these days. Larger numbers of young boys and girls are to be seen in shops, as ticket collectors on the trams and subways, and elsewhere. As more and more men are called to duty there is a growing demand for labor.

The government has found a most convenient vehicle to ease the shock of transition from "business as usual" to "total warfare." This is the so-called "Tonari-gumi" or Neighborhood Group, made up of anywhere from eight to 20 households. The heads of each of the households meet monthly at one of the homes for a neighborhood gathering, the host being in charge of all activities for the month. Each Neighborhood Group chief is responsible to the head of the district Street Union, whose heads are in turn responsible to the leaders of still larger units. Thus the whole country, especially in the urban areas, is divided into many thousands of closely integrated little cells made up of neighbors, and those at the top of the pyramid, that is, the government, have direct access into every household.

The Neighborhood Groups also assist the government in the distribution of ration tickets and similar duties, taking a great deal of the administrative burden off of the regular officials.

Since speculation, either verbally or in the press, regarding government policy has been forbidden in Japan, these Neighborhood Groups serve as a convenient outlet for the natural anxiety and nervous energy of the people. The very fact that every individual can help with the national defense through these groups has given the patriotic and energetic Japanese much comfort.

### Nation United

Each of the Neighborhood Groups have their own ideas about defense measures. One group, for instance, is busy erecting small cisterns in front of each house so that there will be an ample water supply for fire-fighting if air raids should come. Another group has begun the task of equipping every household with knapsacks so that they may be ready for a general evacuation. A third has instructed its households to dig trenches as temporary air raid shelters and to dig other holes in which family valuables may be buried as protection against fire.

Perhaps in time the government will get around to co-ordinating the efforts of each of the individual groups, but to date it has been too busy with economic problems. Each night there are several radio talks in which the elementary economics of total warfare are explained so simply that even children can get a general idea of why food happens to be so scarce. To date it was more important that everyone got his share of food and the threat of bombardment was distant. Now that everyone is getting enough to eat, which is more than can be said of Europe, and with air raids less remote, it is likely that official attention will be re-directed.

Japan, as other observers have pointed out, is extremely vulnerable to air attack. The cities are made up of closely-crowded paper and matchwood houses and fire is one of the most-feared hazards. There is no doubt that the Japanese are acutely aware of this danger, and some are a bit impatient with the complacency which official quarters as well as public opinion considered the possibility of air raids.

Yuji Isobe, formerly *Asahi Shimbun* correspondent in London recently returned to Tokyo after witnessing some of the worst of the air raids in Europe. He wrote a book dealing with problems involved in the air defense of London and brought out many points pertinent to Japanese defense. The book in general directs Japanese attention to the ill-preparedness of their own efforts and has proven of considerable interest to people here.

### What of the Future?

Perhaps a word or two may be pertinent as to how the Japanese regard the future. There have been many reports, often by people who have not been in Japan recently, of a growing war-weariness. Perhaps that exists, and it would be natural that it does. The people I have talked to, many of them newspapermen in close touch with the public pulse, assure me there is no enthusiasm for war with Britain, the United States or Russia. They wish to avoid it if they possibly can. But they have no hesitation about entering into new conflicts if they must. There is something fatalistic in their outlook—they don't want war, but if they must have it, they must, and there is nothing more to be said. While officialdom may know Japan's limitations, the people have the utmost faith in their ability to withstand further hardships and carry on for the Emperor. Material deficiencies are of secondary importance to their way of thinking. This is not to imply any fanatical desire for conquest and glory; I merely wish to point out that to the Japanese mind the material factors retreat before the will and spirit to succeed.

There is no doubt that four years of warfare have strained the country's economic stays, but Japan is still far from the breaking point. The countryside is as green and beautiful as ever and the factories belch smoke as in boom times. The trains continue to keep their split-second schedules and the buses shuttle about city and rural area alike. Everyone has clothing to wear and food to eat, and that is more than can be said for almost half the world's population. There is nothing assuring or complacent in Japan's outlook, but on the other hand the Japanese can look to the future with a calmness and what might even be called confidence that he certainly did not possess a year ago. It is, of course, an altogether different matter as to whether this outlook is justified. At any rate the nervousness and near-hysteria of a year ago has been replaced in a manner that one senses by a cold deliberateness.

### New Bucyrus-Erie Tamping Rollers and Rippers

Rippers and tamping rollers are new tractor equipment items recently placed on the market by Bucyrus-Erie Company, South Milwaukee, Wisconsin.

The new Bucyrus-Erie Tamping Rollers are offered in single, double, or triple drum models, with 72, 96, or 112 feet per drum available in each model. All rollers have rear pull connections for working in trains, and all drums are provided with openings for ballast. Double and triple drum models have oscillating drums which permit the rollers to adapt themselves to uneven ground surfaces. The tamping feet are renewable; when they become worn, they are not replaced or refaced by welding. Instead, they are easily removed and easily replaced with new feet at a fraction of the cost of welding.

The new rippers are of two types, the rotary type and the heavy duty cable-operated type. Outstanding feature of the rotary type ripper is a rotating head, which swings the ripping standards up and back and around to ripping position again quickly. This quick raising and lowering of standards makes the Bucyrus-Erie Rotary Ripper especially effective for work in material containing boulders and heavy roots. Complete rotation of the head also dislodges rocks and debris caught between the standards and prevents the ripper from picking up the same debris again. Since power to rotate the head is derived solely from the pull of the tractor drawbar, the rotary ripper can be used with tractors having hydraulic controls or with tractors having no auxiliary power equipment.

The cable-operated ripper is a heavy duty ripping tool for breaking up exceptionally hard-digging hard-loading materials such as shale, hardpan, decomposed granite, sandstone, old macadam, etc. Controlled by a cable operated from the tractor winch, the standards on this ripper can penetrate full length below ground level, 17 inches on Model CR-1 and 24 inches on Model CR-2. The standards can also be set at any intermediate point or raised above ground for traveling. To add to the life of the ripper, the self-sharpening ripping points are renewable and can be easily replaced as they become worn.

Many other features of these new rippers and tamping rollers are described in bulletins published by the manufacturer. These bulletins can be obtained by writing to this magazine or to Bucyrus-Erie Company, South Milwaukee, Wisconsin.



# Thailand and Japan

By MARC T. GREENE

**A**FTER a recent visit to Thailand and a pretty intensive investigation, as well as long conferences with several of the Ministers, the conclusion I reach is that this little country, a place of charming and polite people and of an exotic Oriental atmosphere found in few other parts of the East, is being a good deal misunderstood, and possibly unfairly judged in respect of its relations with Japan.

While I was there the mediation agreement was reached in Tokyo. As a result of that agreement, which returns to Thailand the much-desired navigation rights on the upper Menam River and about one-sixth of the land area Thailand has lost to the French at regular intervals since 1883, the impression appears to prevail rather generally abroad that Thailand now becomes practically a political vassal of Japan and possibly a pawn to be moved, when and if the time comes, in the game against British interests in the East. It has even been charged that Thailand is now to all intents and purposes a member of the Axis and that whatever Japan demands of her in the way of "reward" for the partially-favorable arbitration decision must be granted, even though it place Thailand definitely in the non-democratic group.

But before a categorical judgment of that kind can fairly be rendered, the general position requires a good deal of careful exploration. So also do the events leading up to the boundary dispute and the Japanese mediation of it.

Various factors, including the rigid press censorship now prevailing in all parts of the East excepting only Shanghai and Manila, have so far prevented much of such exploration so far as the public is concerned. Still the name Thailand—or Siam—associates itself to the outside world mainly with Siamese twins and white elephants.

## Position of Thai

Moreover, Japan's attitude of declared sympathy with the Thai territorial claims is rather naturally admitted by no one to savor of altruism, and so it is unfortunate for the Thais that the Japanese, of all peoples, should be the ones to aid them in the land recovery. It casts a grave suspicion upon the Thais and has gone a good way toward alienating from them the sympathy and goodwill of the rest of the world. It is a definite case, this, of the corrosive effect upon a reputation, politically speaking, of being too much in bad company.

But for all that, it does not seem clear to me, as the result of my investigation in Thailand, that the people there either wish the country to become a satellite of Japan or, so far at least, has become so to any significant extent. Whether they will, remains to be seen and probably will be seen very soon, when, as is altogether likely, Japan demands payment for services rendered.

Thailand's modern history really began only in 1932 when the bloodless revolution—perhaps the only one of its kind in history—altered the government from an absolute to a constitutional monarchy. The general trend of things then has been in the direction of replacing feudalism, both political and economic, with a regime more akin to the modern spirit. Personally, I have had a good opportunity to note the change and what it has meant because I was in the country in 1930 and my recent visit was the first since then.

I marked, as any fair observer must mark, the remarkable progress that the little country has achieved since then, a progress that has advantageously affected—as anything pretending to be progress must if it is to be of any value—the masses of the Thais, most of whom are agriculturalists. Until the end of the purely feudal, absolutist regime, these masses were in almost complete economic thralldom to the Chinese. The Chinese owned all the rice-mills and, as in Bali and others of the Dutch possessions, more than half of the Thai rice-growing peasants were in the grip of the Chinese money-lender.

Not only that, but practically the whole retail trade of the country was in Chinese hands. Taxes were so low that Siam was a true happy-hunting-ground not only for the Chinese but for all other foreign traders. There was no income-tax for anybody, and about half the national revenue—which was composed largely on

the "capitation-tax" of five ticals annually and was paid by every one—went into the "privy-purse," that is to say the personal fund of the enormous "royal family." This, in various forms of relationship, affiliation, and service, numbered many hundreds, all living in luxury off the labor of the peasants.

## Former State of Affairs

The country itself was making no progress whatever, either material or cultural. It was dominated entirely by foreign interests, and the only school system that existed was in the hands of the Buddhist priests, with a very few foreign mission exceptions. Japanese commercial influence, in active competition with British, German, French, Dutch, and Chinese, was increasing. The peasants grew their rice and sold it to Chinese mill-owners at vast disadvantage to themselves, often at an even greater disadvantage to Chinese middlemen. If the crop was bad, or perhaps failed entirely, they were aided by these middlemen or by Chinese loan-sharks. There was no such thing as rotation of crops, and, after the rice had been grown and harvested, the peasants spent wastefully what had been received for it and idled until the next crop matured.

It seems incredible, viewing the position in retrospect, that America and Britain concerned themselves so little with this slothful state of things which was all the time playing directly into the hands of the Japanese. Here was a nation of agreeable, easy-going, and friendly people, readily receptive to sympathetic interest from abroad. But all the interest anybody showed was the acquisitive one, and the Japanese were of course not the least acquisitive. They began to make their influence felt, commercially at least, twenty-five or thirty years ago. You found it alleged by every foreigner in the country that practically all Japanese in Siam were espionage agents of one sort or another, not necessarily engaged in discovering military secrets—if there were any—nor in making maps of the country, but rather in a kind of subtle cultural penetration that was designed and, as we now see, to a large extent succeeded, to inculcate among the Thai people an interest in and a liking for things Japanese. And, more than all, in a conviction that Japan was Thailand's only friend, east or west.

How unfortunate it was that the European nations did not take measures to counter all this, is now but too apparent. But they were, as usual, concerned only with trade, seemingly never giving a moment's consideration to a fact that ought to have been very obvious, that here was a land of rich natural resources, a treasure to any of the "have-nots," also a region of great strategic value to a possible enemy of European territories and interests in the Far East.

## Part Japan Played

As a matter of fact, then, the whole attitude of the Western world toward Thailand was one that played directly into the hands of the Japanese and they have taken full advantage of it. It is, then, something less than fair for any one of the Western nations to denounce the Thais as willing tools of the Japanese and—as is already being done—to treat them as foes of the Western democracies.

The Thais have, as noted, made definite progress in the eight years since their revolution. Together with a material advance that manifests itself in a number of ways not to be overlooked by anybody, they have made long strides culturally, especially in the matter of education. For the purpose of furthering this and of preparing for important official positions the most promising young men of the country, they have sent to America and England during the past eight years more than one hundred students, each at the national expense. I talked with several of these, one of whom was Rhodes Scholar, graduate of an American college and later of the London University School of Economics. Since the war all Thai students in England have transferred to America.

Most important of all, perhaps, the new Thai government has made definite progress toward shaking off the economic grip of

(Continued on page 283)



# Omnibus Transportation in the Philippines

Where Passenger Rates are Lowest in the World

By MANUEL VIJUNCO

THE meteoric growth and expansion of the bus transportation system in the Philippines is welded indissolubly into the pattern of the economic and social development of the Islands.

Transportation companies in the Philippines maintain a highly efficient service covering both the big centers of populations like cities and first class towns as well as the far-flung hamlets accessible by passable roads. The regularity and dependability of the daily service of these bus companies can be compared favorably with the best bus route systems and railroads in the United States.

Bus transportation is a big business enterprise started by far-sighted American businessmen who saw a bright future in the venture way back in 1910 when the United States encouraged and guided the Philippine Government in the launching of an ambitious road and bridge building program throughout the archipelago.

Philippine bus companies charge the lowest passenger fare in the world—P0.01, Philippine currency (or  $\frac{1}{2}$  cent, U.S. money) per kilometer. Holders of round trip tickets are given from 20 to 25 per cent discount. In the southern Luzon Tagalog region (Batangas and Laguna), bus companies went further in the reduction of fares by charging P0.0075 per kilometer.

The year 1941 marked the beginning of the extensive expansion and improvement in the service of transportation companies in the Philippines. Streamline, closed-bodied passenger trucks with high cushion seats and especially constructed to make travel in the tropics highly comfortable and pleasurable are now common sights on the Philippine highways, including on the roads that traverse the wilderness of Mindanao and the mountains and pine tree forests of Mountain Province.

Judge Vicente Vera, senior Commissioner of the Public Service Commission (the body entrusted to look after and supervise the operation of public utilities in the Philippines) is mainly responsible for the maintenance of good bus service in the country. Mario Villanueva, the commission's secretary, and the Director of Public Works, also deserve commendation for bringing to a new high level the efficiency of transportation companies in the Philippines.

The present service of bus companies in the country is a far cry from the service known to the people three decades ago. The early Philippine transportation firms operated cheerless and ill-built buses that ran on solid tires. With broadseats that had no cushion, passengers huddled on these buses that ran haphazardly without following fixed schedules.

At present, Philippine buses are patterned after the first class passenger trucks in the United States, modified in some way to make them suitable to tropical conditions. They follow fixed

schedules, departing from one terminal at a fixed hour and arriving at the end of the line also at a fixed time. They are manned by trained drivers and conductors who undergo extensive training and examination before they are allowed to work.

Domingo R. Onrubia, Superintendent of Motor Transportation of the Manila Railroad Company, designed and introduced on Philippine highways the first streamlined, closed-bodied busses that spell beauty, utility, comfort, ease and dependability. Supervising the operation of the Manila Railroad Company's subsidiary the Luzon Bus Line, Superintendent Onrubia enforced efficiency and safety measures that have prevented disastrous highway mishaps.

The Luzon Bus Line and the Benguet Auto Line, both operated by the government-owned Manila Railroad Company, reported a consolidated revenue of P1,598,185.17 for the fiscal year 1939-40. This showed an increase of P140,411.83 over the income of the two companies in the preceding year. The Luzon Bus Line, running buses in Manila, Rizal, Cavite, Batangas, Laguna and Tayabas, transported 3,285,153 passengers in 1939-40.

With the aim of hastening the development of Mindanao, a big island in the south near Borneo, the Manila Railroad Company started the operation of the Mindanao Motor Line, formerly the Cotabato Valley Land Transportation Company. Originally, the operation of the Mindanao Motor Line was concentrated in Cotabato province. Later, other Mindanao provinces were covered. Express buses of the company now run on the trans-Mindanao Sayre highway—from Cagayan, Oriental Misamis in the north down to Davao City in the south, a distance of 398 kilometers. The trans-Mindanao Sayre highway piercing the interior of the vast and fertile Mindanao island was inaugurated by American High Commissioner Francis B. Sayre on September 2, 1940.

The A. L. Ammen Transportation Company, owned by American and Filipino investors, and the Panay Autobus Company, owned by the wealthy Lopez family of Iloilo, are the two leading transportation companies in the Philippines. The A. L. Ammen Transportation Company, having more than 300 busses to serve the Bicol provinces of Camarines Norte, Camarines Sur, Albay and Sorsogon, is capitalized at P1,345,450 (1939-40 figure). The Panay Autobus Company which controls the overland transportation service on the island of Panay (Iloilo, Capiz and Antique) has P1,008,465 capital to maintain the operation of its more than 300 buses in the three Panay provinces.

There are three big transportation companies owned by single persons, all Filipinos—the Halili Transportation and its affiliated companies of Fortunato



Units of Mindanao Motor Line in actual service on various routes in Cotabato, Lanao and Oriental Misamis Provinces, Mindanao



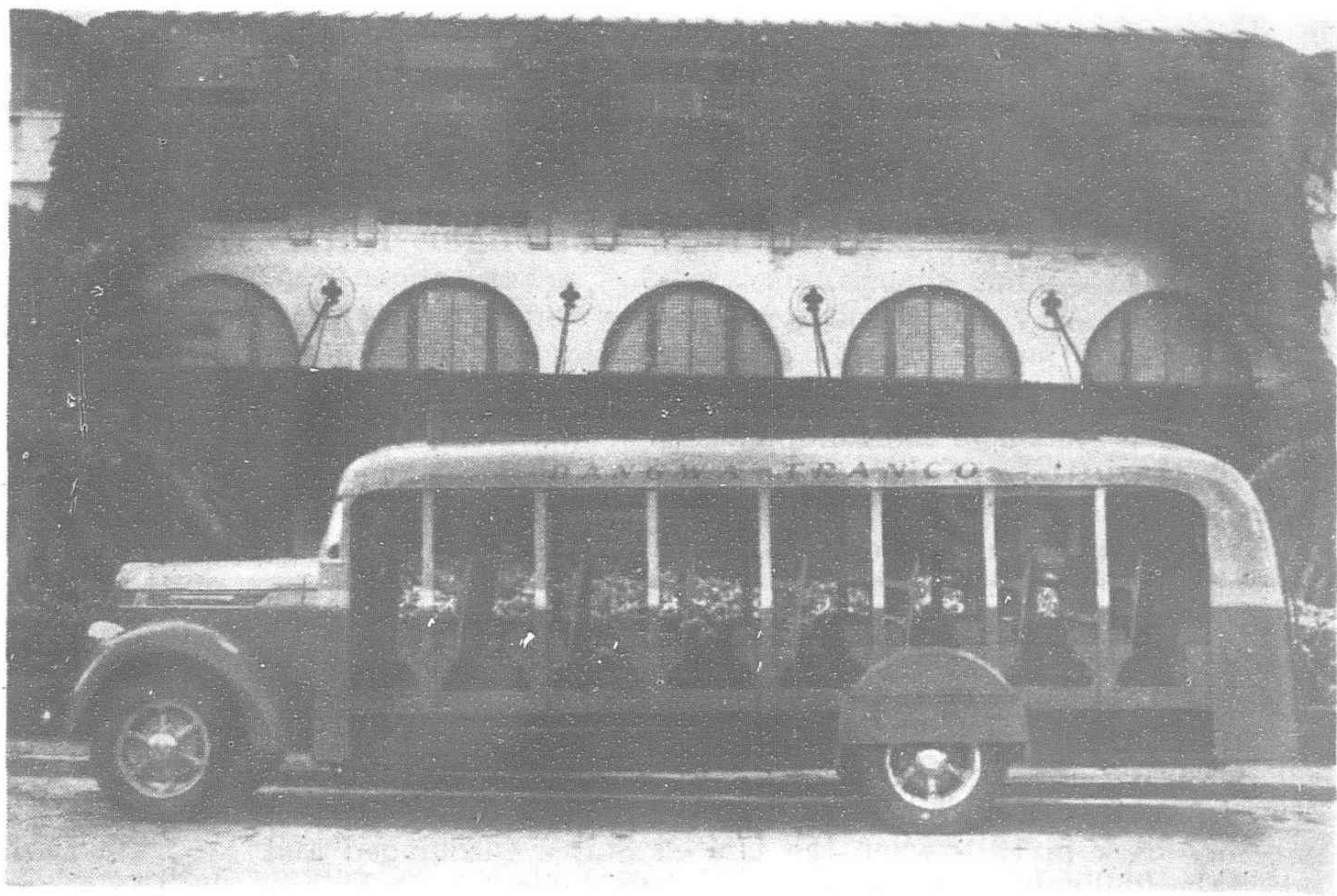
F. Halili; Santiago Sambrano Transportation and its subsidiary, Luisita Transportation, of Santiago Sambrano; and the Angat-Manila Transportation and its subsidiary, Red Bus Line, of Matias A. Fernando. The Halili Transportation is capitalized at P312,099; Santiago Sambrano Transportation, P307,514; and the Angat-Manila Transportation, P279,443.

The capital investments of the other leading transportation companies in the Philippines follow:

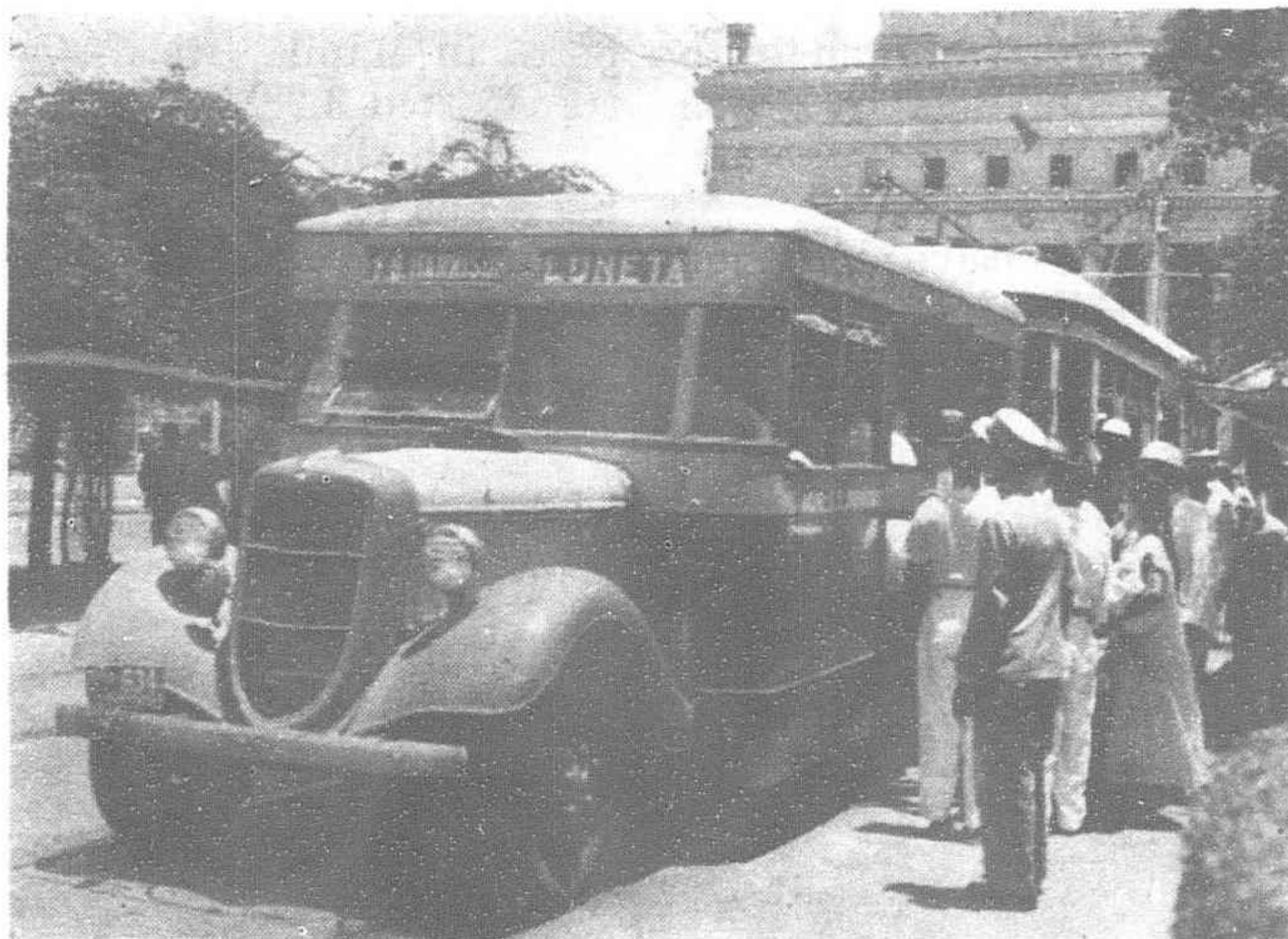
Batangas Transportation Company, P338,554; Bisaya Land Transportation Company, P156,042; Bohol Land Transportation Company, P320,127; Cebu Autobus Company, P597,658; Cebu Transit Company, P204,311; Dangwa Tranco, P203,220; Eastern Tayabas Bus Company, P146,526; Iloilo Transportation Company, P352,896; Inter-Provincial Autobus Company, P164,594; Jolo Garage, Inc., P139,944; M. R. Mateo Transportation, P134,844; Mindanao Bus Company, P232,885; Northern Luzon Transportation Company (Norlutan), P239,884; Pasay Transportation Company, P517,689; Pangasinan Transportation Company (Pantranco), P932,947; Raymundo Transportation Company (Hasikaso), P213,426; Red Line Transportation Company, P255,497; Rural Transit (Bachrach Motor Company), P944,053; Visayan Rapid and Negros Transportation Company, P525,716; Estate of Teodoro R. Yango (Trytran), P112,779; and Zamboanga Autobus Company, P208,091.

The Pampanga Bus Company operating in Manila, Rizal, Bulacan, Pampanga, Bataan and Tarlac, completed the best semester since its organization. Colonel Harry R. Andreas, president of the company, reported that for the second time in 1941, the Pampanga Bus Company will pay cash dividends amounting to P63,000, or P0.07 per share of the outstanding issue of 900,000 shares. The first dividend this year paid on February 4, last, reached P90,000 or P0.10 per share.

The Pampanga Bus Company, better known as the Pambusco, is a well-managed transportation firm. It built large storage tanks for fuel, changed some of its old buses with new powerful Diesel trucks and organized a co-operative store for its employees with whom it entered into a



The modern open broad-seat passenger truck of the Dangwa Tranco operated on lines between Baguio and the mining districts on the Baguio-Bontoc Mountain Trail



A bus of the Manila Electric Company shown at the Company's Plaza Lawton Station

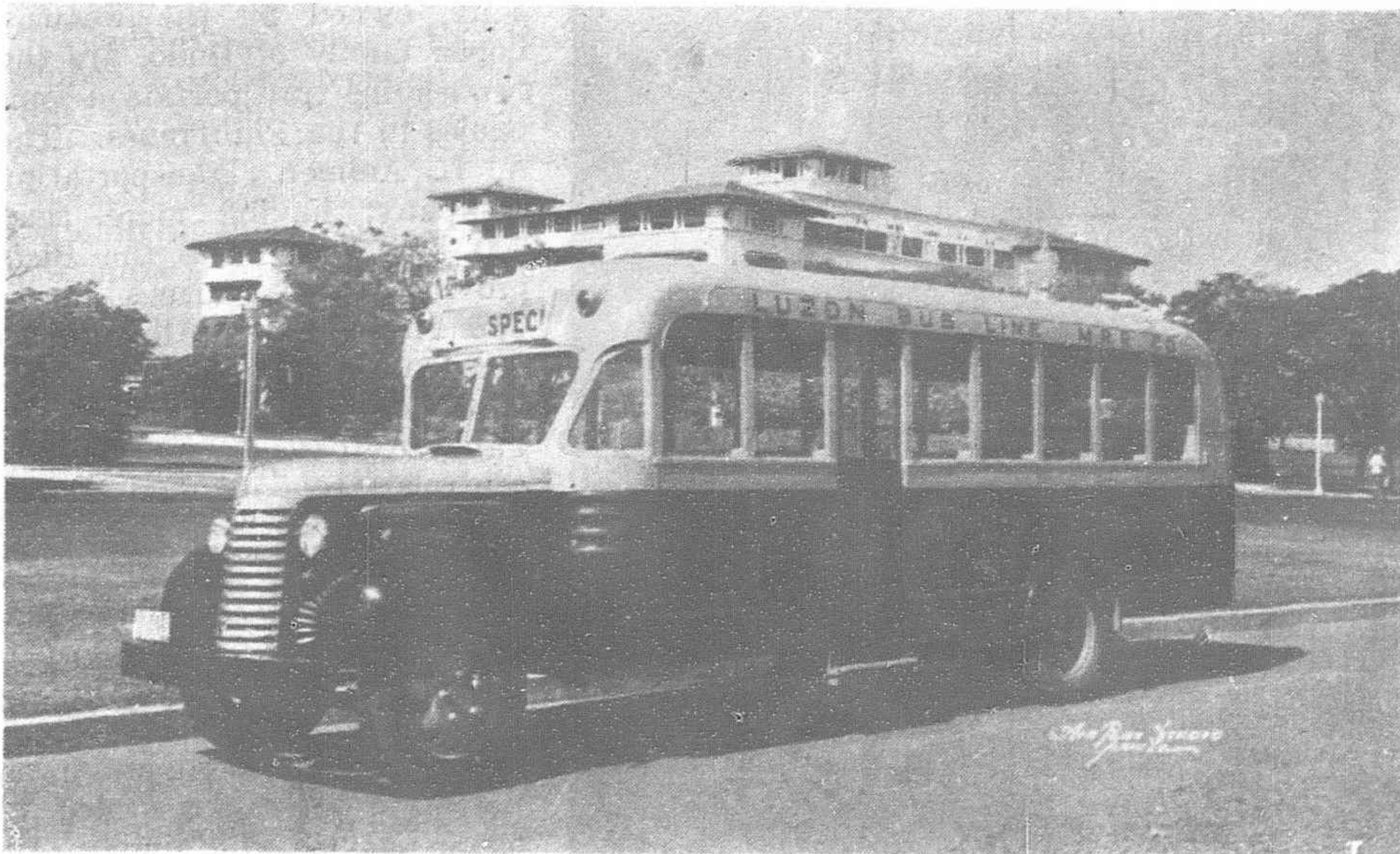
satisfactory working agreement.

The Halili Transportation pioneered in the introduction of de luxe tourist buses in the Philippines. The Dangwa Tranco, Inc., of Baguio has a special touring service covering sightseeing in Mountain province, including the world-famous rice terraces of Banaue. Sebastian C. Palanca, Filipino businessman, introduced double-deck buses on Manila's aristocratic Dewey Boulevard, each vehicle costing more than P12,000. The Pangasinan Transportation Company inaugurated express services on the Manila-Pangasinan Province routes, each line covering no less than 200 kilometers. Similar express services are maintained by the Halili Transportation's subsidiary, the Halili Transit, on the

Manila-Ilocos Region lines, each covering about 400 kilometers.

Capital investments in bus transportation have been steadily increasing during the last three years. In 1937 investments amounted to P12,547,769.29; in 1938, P12,860,740.80 and in 1939, P15,188,767.50. The amount invested by Filipino bus owners in 1939 reached P7,120,100.03 and the Americans also had about the same sum. The transit firms, during the same period, reported an income of P21,580,520.30 and the operating expenses, P20,061,786.87, showing a 10 per cent profit on their investments.

Leading transportation men in the Philippines who have done creditable work in the field of the country's bus operations include: Colonel Harry R. Andreas, president of the Pampanga Bus Company; Max Blouse and J. W. Crow, president and general manager, respectively, of the Batangas Transportation Company; Major Martin Olson, general manager of the Laguna-Tayabas Bus Company; W. C. Ogan, president of the Cebu Autobus Company and the Bohol Land Transportation Company; Walter S. Price, president and general manager of the Leyte Land Transportation Company; Bado Dangwa, manager-treasurer of the Dangwa Tranco; Frank Klar and his son, J. L. Klar, of the Pangasinan Transportation Company; L. D. Minnich, general manager of the Norlutan; Fernando and Eugenio Lopez, (Continued on page 287)



A streamline, closed-bodied bus of the MRR—owned by Luzon Bus Line. In the background is the Manila Hotel



# Shanghai, Harried by Restrictions, Sees Price Structure Dislocated

By JOHN F. SHAW, U.S. Bureau of Foreign and Domestic Commerce

**T**IGHTENING and mounting trade restrictions have created a progressive dislocation of the price structure at Shanghai, China's greatest port. Throughout 1940 and into 1941, the costs of living in Shanghai for European, or foreign non-Asiatic, residents and the Chinese population alike have risen at an accelerating rate. Hardships, ever more acute, are resulting from this situation.

Being the bottleneck through which flows all trade between the outside world and the rich Yangtze Valley, Shanghai's industrial and trading community has been peculiarly sensitive to the many trade controls that have been imposed—first by the Japanese authorities in China and subsequently by other foreign governments having to meet the exigencies of rapidly developing emergency conditions.

Controls of both trade activities and foreign exchange have been of such drastic nature that in many cases the movement of raw materials from the hinterland, or of manufactured goods from Shanghai into the interior, has been made almost impossible.

## Trade Disruptions and Rising Prices Incite Trouble

In consequence, Shanghai's export to foreign markets of China's products has become steadily more disarranged. Controls over imports have likewise caused imported commodities to become scarce and expensive. Apart from their effect on the port's relations with foreign markets, controls over movements of raw materials and fuel into the city from the interior have curtailed the output of Shanghai's industries, caused serious unemployment, and greatly enhanced the price of locally produced industrial goods.

The struggle to overcome the harrassments of a more straitened existence is daily told in a succession of food riots, strikes, and terrorisms.

## Costs of Living for Salaried Foreigners Practically Doubled

By graphs, the rising costs of living for the principal elements in the population since the overrunning of the city by Japanese forces in 1937 are made clear. No index of the costs of living for foreigners is available prior to October, 1939; but, accepting the Shanghai Municipal Council's index for that month as

100 for foreign salaried workers, then the cost-of-living index for this class of residents had risen by January 1941 to 191.98 (Fig. 1).

This applies only to the "white collar" class—there being no foreign laborer or artisan class in China—with salaries ranging from 200 to 1,800 Chinese dollars,\* or yuan, per month. No attempt has been made to set up a cost-of-living survey for the larger-income managerial or "taipan" class, or for capitalists who derive their income from profits.

Approaching the problem from another angle, the purchasing capacity of the foreigner who received his salary in Chinese dollars† was, in January 1941, only 52.09 per cent (Fig. 1) of his purchasing capacity with the same income in October, 1939.

Because of the many factors involved, including differences in manner and style of living, or in essential requirements, no real basis of comparison exists as between the increasing costs of living for foreigners and for Chinese. Assuming, however, the index of living costs for Chinese workers during the pre-Incident year—specifically for 1936—as 100, the index for this group in January 1941 stood at 597.19, or a nearly sixfold increase.

## Depreciation of Yuan a Primary Factor

The cost-of-living index for foreign salaried workers has in-

creased steadily since October 1939, and particularly after December of that year (Fig. 1). Only in May and June of 1940 was a leveling tendency apparent, with the purchasing power of the Chinese yuan correspondingly stable, as evidenced by the same graph.

The steady decline in foreign-exchange value of the "fapi," or national currency,

\*The average value of the yuan in 1941 was \$0.06 in United States currency.

†Where the salary received is based on gold or sterling, the amount of Chinese dollars received varies, of course, in accordance with the exchange value of the yuan. However, according to recent reports, while the average exchange rate of the United States dollar in terms of the yuan had appreciated by 46 per cent in March, 1941 over the October-December, 1939 rate, living costs jumped simultaneously 99 per cent. As a result, American salaried workers who are being paid in United States currency, and whose remuneration has not been commensurately increased, are faced with the difference between a 99 per cent increase in living cost and a 46 per cent advance in income.

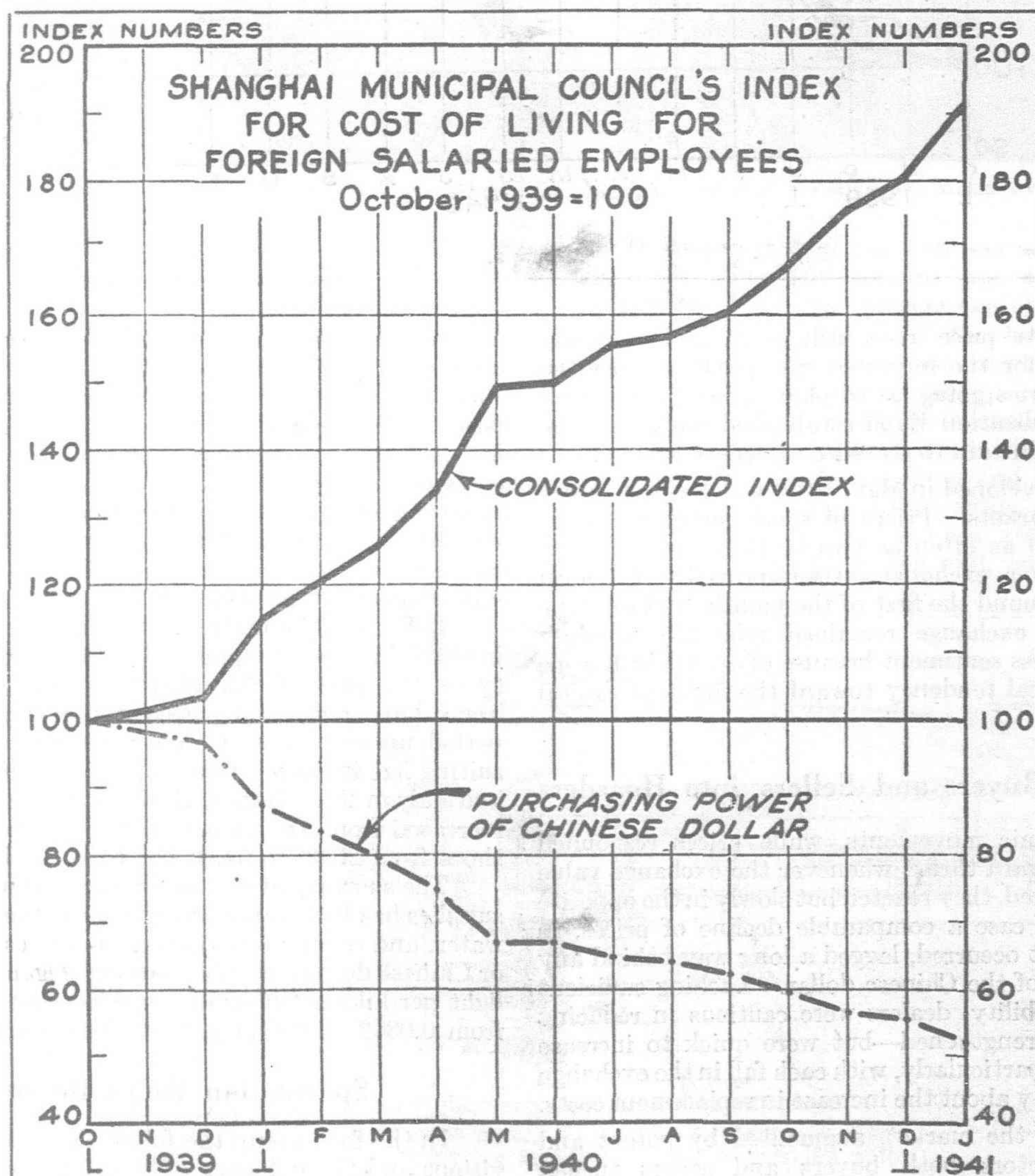


Figure 1.



has naturally been the factor chiefly responsible for rising commodity prices. Shanghai's retail prices of commodities, whether imported or native, have closely followed drops in the foreign-exchange value of the "fapi." When, after a period of comparative stability in the latter months of 1939, at a rate of \$0.07826, U.S. currency, the yuan began a consistent decline from February, 1940, retail prices reacted accordingly and rose with greater acceleration than in the previous months. Immediate fears for the ultimate value of the yuan developed at Shanghai and caused a considerable flight of money into goods—chiefly cotton yarns and cotton piece goods—which had the effect of stimulating local industrial activities.

### Exchange Fluctuations Confuse Merchandising

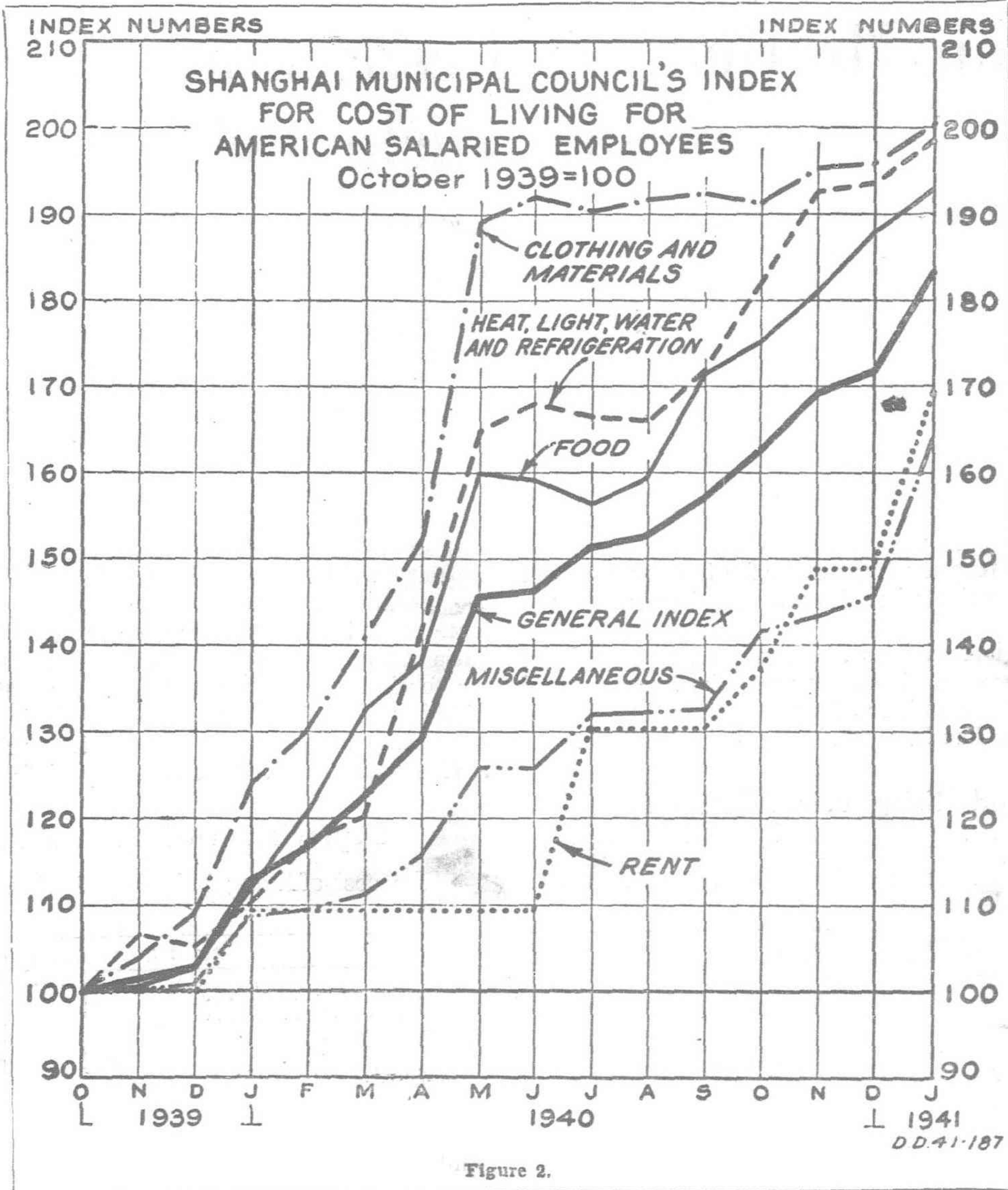
The effect of this increased industrial activity was to accelerate price rises still more, and to create such increased demands for the imported raw products essential to keep Shanghai's factories going, as to place a heavy strain on the resources of the Stabilization Fund established jointly by the United States and Great Britain to stabilize China's currency.

An exchange crisis developed in May, 1940, which caused great confusion in all retail markets. Prices of some commodities are reported to have changed as often as two or three times a day. Late in the month, however, exchange rates improved to the level that they had attained around the first of the month, and over the next two months yuan exchange remained relatively stable—reflecting improved business sentiment because of events in Europe and a lessening of the local tendency toward the flight of capital into goods.

### Forces that Turned Buyers and Sellers into Hoarders

As always in economic movements, while prices responded fairly readily with an upward thrust whenever the exchange value of the local currency declined, they reacted but slowly in the opposite direction. In Shanghai's case a comparable decline of prices, in those instances in which it occurred, lagged a long way behind any strengthening movement of the Chinese dollar. Lacking sufficient assurance of currency stability, dealers were cautious in reducing prices when the dollar strengthened—but were quick to increase prices, on imported goods particularly, with each fall in the exchange rate, because of uncertainty about the increase in replacement costs.

In such confusion of the market, augmented by potent and unforeseeable political factors, both buyers and sellers turned hoarders—buyers under the apprehension of further shortages, sellers in anticipation of better profits.



dollars, the Shanghai Municipal Council's cost-of-living index stood at 183.37 points in January 1941 (see Fig. 2). This index was the highest of any month since October, 1939, the arbitrary base of this particular index. The rise from the base period has shown a continuous and marked upward trend in the costs of food and clothing, heat and light, and other items. The index for clothing and materials has shown the greatest increase, standing at 200.6 on January, 1941, followed by 198.89 for heat, light, water, and refrigeration, 193.07 for food, and 163.07 for miscellaneous items (see Fig. 2).

Reflecting the higher cost of imported merchandise, difficulties in obtaining textile supplies from the interior, and speculative activity on the part of Shanghai merchants, all textiles and clothing items have registered substantial increases in prices during the period under review (October, 1939 to January, 1941). Woolen suiting has increased from 22.50 to 59.50 Chinese dollars per yard, and Saigon linen from 6.75 to 19.50 per yard. Men's shirts have increased from 5.00 to 8.36 Chinese currency per piece, and men's shoes from 26.90 to 54.90 per pair.

The shortage of coal at Shanghai and the high cost of imported supplies has had an important bearing on the rise in the heat, light, water, and refrigeration index. Coal has increased from 108 yuan, or Chinese dollars, to 274 yuan per metric ton. The cost of electric light per kilowatt-hour has increased from 37 to 44 cents, and gas from 0.0369 to 0.0774 cent, Chinese currency, per ten cubic feet.

### Speculation Helps Boost Food Prices

In the food group the following prices tell of shortages of provisions and the influence of hoarding or speculation as a result of difficulties in moving supplies into the city from the hinterland.

(Continued on page 271)

### Diversions to Japan Make Shanghai Abnormally Dependent on Foreign Foodstuffs

Japanese controls have been specially onerous upon Shanghai's economy by diverting to Japan large supplies of rice, cotton, and other products of the Yangtze Valley, while such quantities of foodstuffs and raw materials as were permitted entry into Shanghai have been made subject to heavy exactions.

As a result, the city has become abnormally dependent upon imports of foodstuffs, principally rice and wheat, from abroad. These, and such staples as cotton and coal also, must be imported at steadily rising costs resultant from depreciated exchange and increased freight rates.

### American Families Feel the Strain

In terms of things bought by American families in Shanghai, in Chinese national



# Steel and Rolling Mill Plant at Bhadravati

THE Mysore Iron and Steel Works is situated at Bhadravati, a small town near Shimoga in the western part of the Mysore State. This particular place was chosen as the site for the factory on account of its proximity to the iron ore mines, forests, and a big perennial river. The blast furnace, which was at first designed to make 60 tons per day (raised to 80 tons in 1928), was blown in in 1923. There is further provision to enlarge it to 100 tons capacity.

In order to dispose of the surplus pig iron and to meet the local demands for mild steel sections, the installation of a small steel plant, consisting of a basic open-hearth furnace and a rolling mill, together with the necessary accessories, was decided upon in 1934. The order for the actual construction of the plant was placed with DEMAG. The open-hearth furnace was started in March, 1936, and the rolling mill in April of the same year.

Fig. 1 gives the general layout of the steel plant. It will be noticed that the storage yard for coal is very extensive. This is because this material must come from long distances, and large quantities, therefore, have to be kept in stock always.

In the buildings for the open-hearth furnace, provision has been made for one more open-hearth furnace. The furnace has a rated capacity of about 25 tons. It is provided with three charging doors protected by water-cooled frames. The doors are operated by compressed air. The air and gas flues are each provided with independent dampers worked by handwheels in addition to a main damper near the chimney. The valve plant comprises one shut-off gas valve, one gas reversing valve of the Forter type, and one air-changing valve of the Simplex type. The chimney is 200-ft. high and has an inside clear diameter of 5-ft. throughout. An electrically driven fan is provided for supplying the furnace with forced draught. The fan has a capacity of 125 cu.m. of air per min. at a pressure of 100 to 120 mm. W.G.

The gas required for heating is made in two gas producers with revolving grates and mechanical slag-removing devices. The producers burn a coal though rich in gas, with 50.5 per cent of C, and 35.5 per cent of volatile matter, but having a high ash content of 12.5 per cent. The gas produced flows through one dust separator each per producer and then passes on into a common main into which, in addition, three pockets have been fitted for depositing the dust. An air blower having a capacity of 75 cu.m. per min. at a pressure of 400 mm. W.G. is arranged in the proximity of the gas producer house. In case of stoppage of the blower motor, a special arrangement has been made for supplying air through an injector.

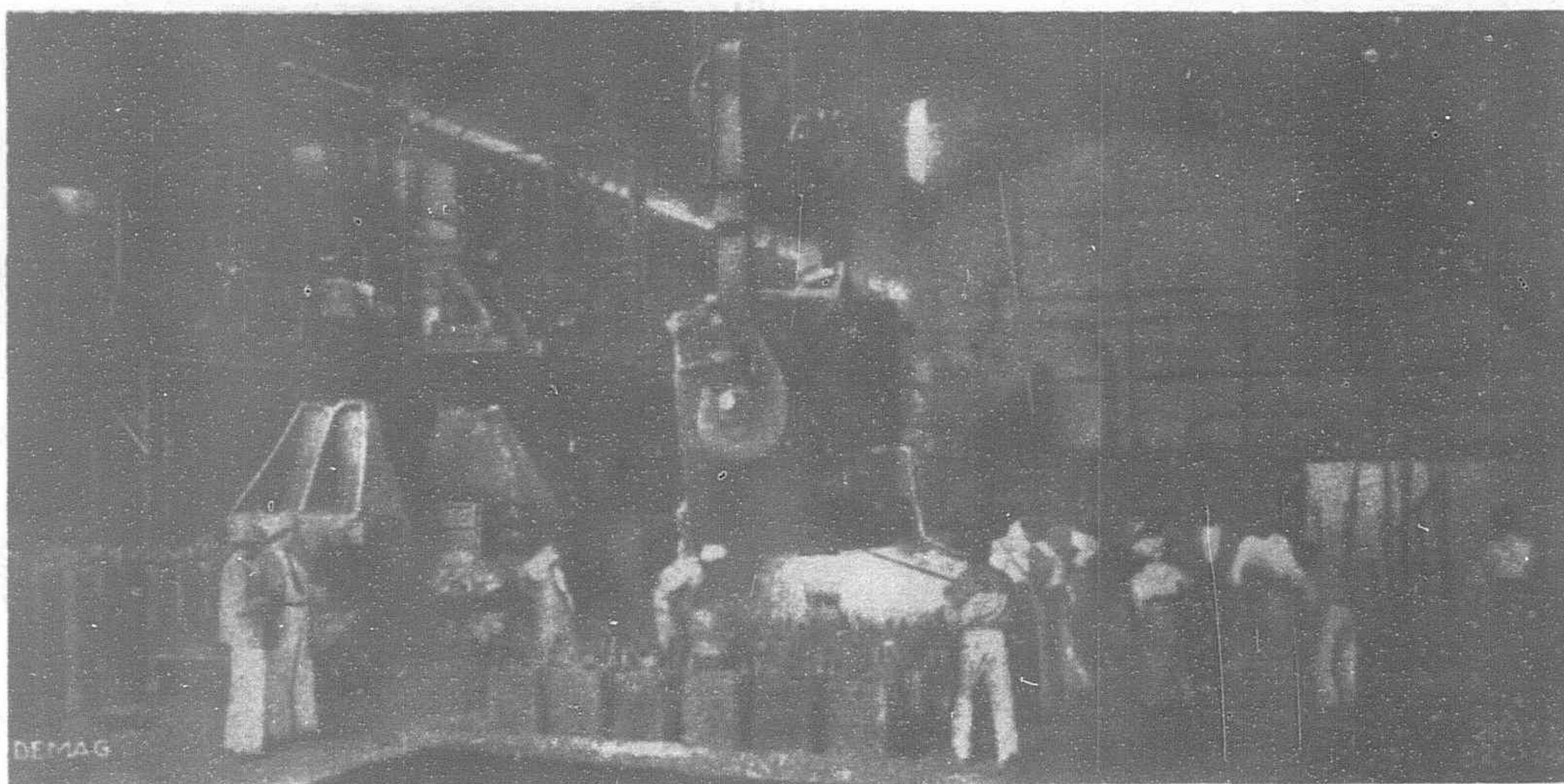
The consumption of coal is 0.247 ton per ton of ingots, including the coal used for the preliminary heating prior to the first charge.

This figure also includes the coal used for charging into the furnace, which is invariably done when the charge is found to consist of a large percentage of soft steel scrap. Deducting this coal quantity the actual consumption at the producers works out to 0.232 ton per ton of ingots.

At the commencement, 60 per cent of cold pig iron and 40 per cent of steel scrap were used. For a few weeks a percentage even as

high as 70 per cent of pig iron was used. The use of hot metal direct from the blast furnace was also attempted, but had to be abandoned for the present, as it was found impossible to synchronize the operations of the blast furnace and the open-hearth furnace. Besides, it was very difficult to get a uniform quality of pig iron and the exact quantity required. When later on, owing to the peculiar trade conditions existing, the supply of pig iron had to be restricted, the charge was gradually changed over to 60 per cent of steel scrap and 40 per cent of pig iron and eventually to 70 per cent of steel scrap and 30 per cent of pig iron.

As only small ingots of 145 kgs. and 210 kgs. respectively have to be produced for the rolling mill, only bottom-pouring practice



Teeming of steel ingots in the steelworks of the Mysore Iron and Steelworks, Bhadravati

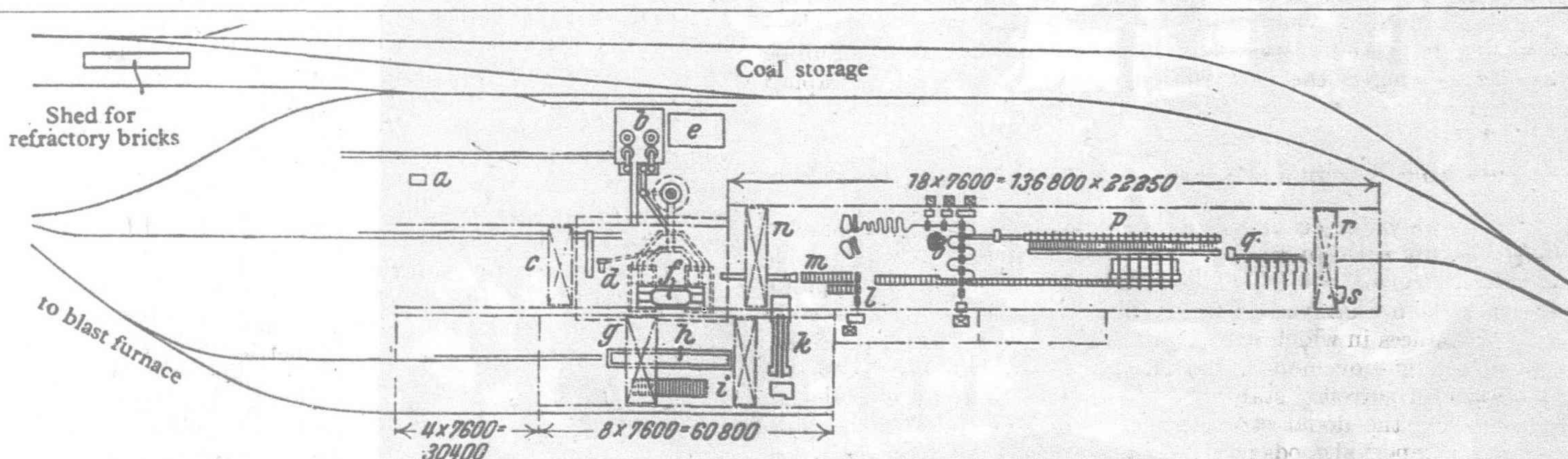


Fig. 1. Plan of the steelworks and rolling mill plant.

a = scrap shear,  
b = gas producer,  
c = scrap yard crane,  
d = blower,

e = coal pit,  
f = furnace,  
g = casting crane,  
h = casting pit,

i = ingot crane,  
k = reheating furnace,  
l = roughing mill,  
m = hot shear,

n = erection crane,  
o = finishing mill,  
p = cooling bed,

q = cold shear,  
r = loading crane,  
s = roller straightening machine.



is adopted in this plant. The casting plate for the bigger ingot is designed to take 16 ingot moulds, i.e., 32 ingots per plate, while the smaller one is for 48 ingots with 12 moulds.

The mill, Figs. 4 to 6, has been designed mainly to roll a large variety of merchant bars and small sections that are in popular demand in the market favorable for the works. The range of rolled products is as follows:

Mild-steel flats,  $1\frac{1}{2}$ -in.  $\times$   $\frac{1}{4}$ -in. to

$2\frac{1}{2}$ -in.  $\times$   $\frac{5}{8}$ -in. by gradation.

Thin steel flats,  $\frac{3}{4}$ -in.  $\times$   $\frac{1}{8}$ -in. to

$1\frac{1}{2}$ -in.  $\times$   $\frac{1}{8}$ -in. by gradation.

Steel strips, 20 gauge  $\times$   $\frac{3}{4}$ -in. to

$1\frac{1}{2}$ -in. wide by gradation.

Steel rounds and squares,  $\frac{1}{4}$ -in.

to  $2\frac{1}{2}$ -in.

Steel angles, 1-in.  $\times$  1-in.  $\times$

$\frac{3}{8}$ -in. to 4-in.  $\times$  4-in.

$\times$   $\frac{3}{8}$ -in.

Small T's, channels and

I-beams.

The reheating furnace, which is located in the casting bay of the open-hearth furnace building, is of the continuous type and has a capacity for heating about 11 tons of ingots per hour. It is charged in two rows and heated by pulverized fuel; a good coal with 32 to 35 per cent of volatile matter is used for the purpose. The hot ingots, that are pushed out of the furnace by an electrically driven ingot pusher, are transported to the first stand of the roughing mill by means of an elevated track. The roughing mill comprises three stands with rolls of 500 mm. dia. that are driven by two motors, each of 650 h.p. The first stand is a cogging-down stand, while the second serves as a rougher for the

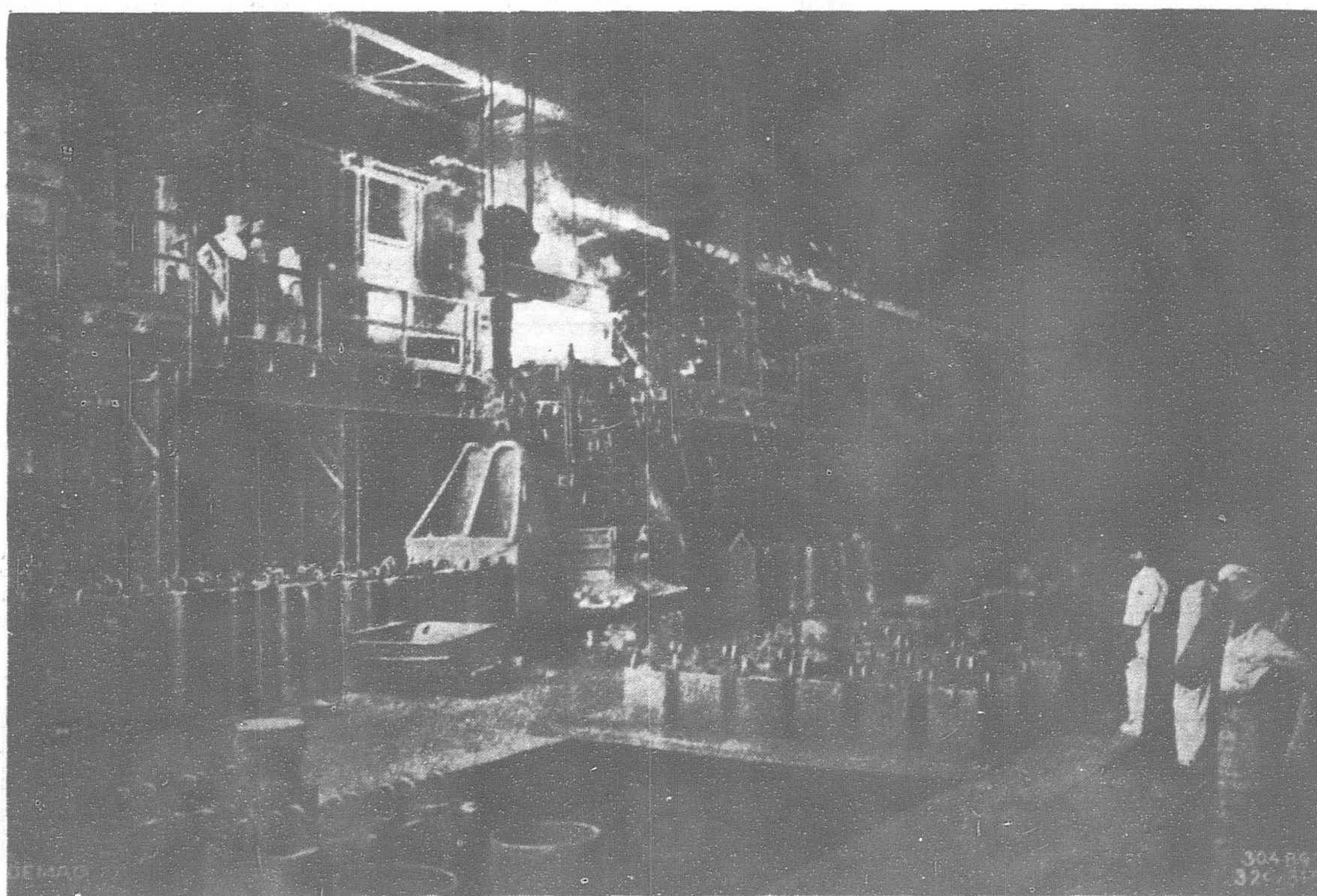


Fig. 3.—Casting bay during furnace tapping

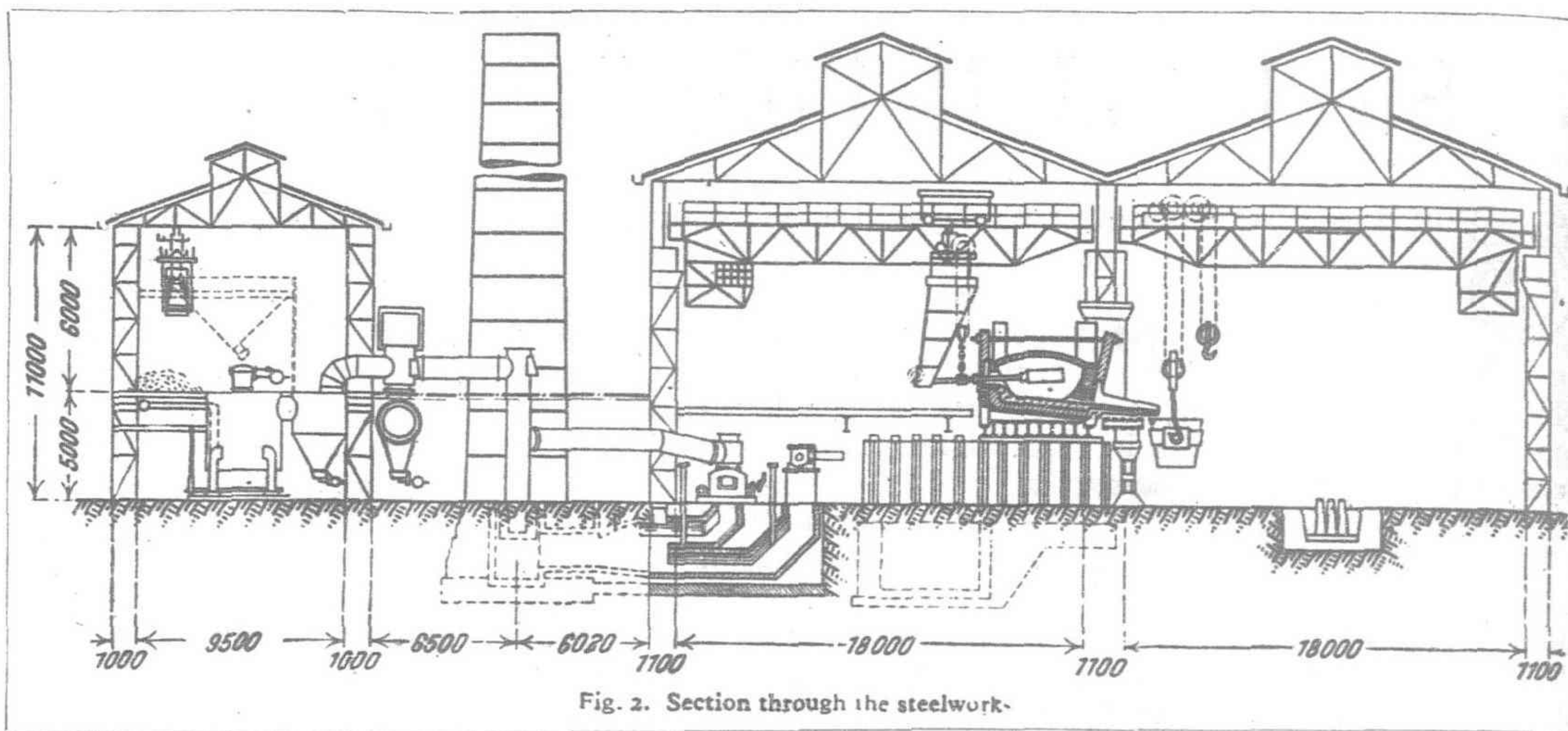


Fig. 2. Section through the steelwork.

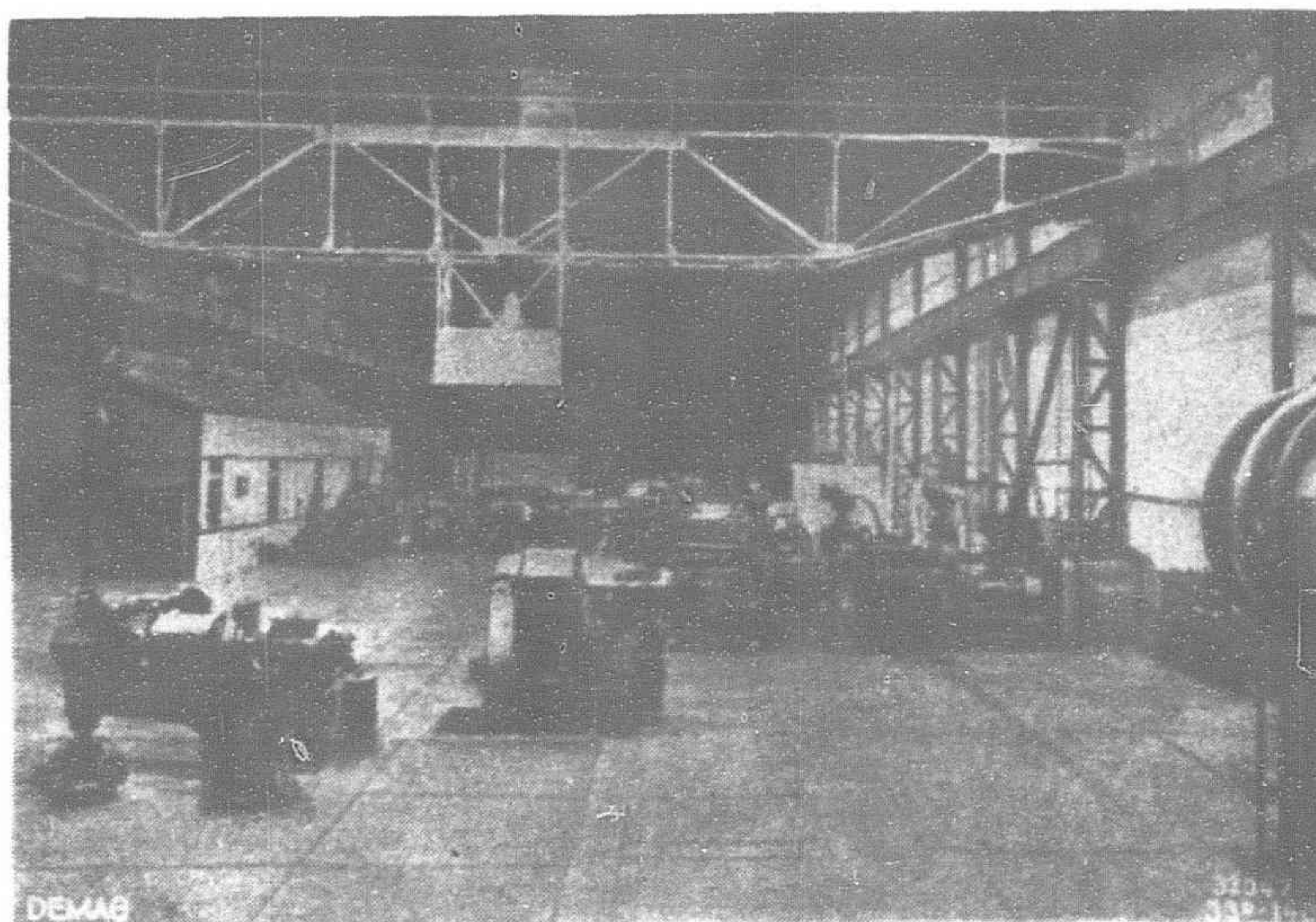


Fig. 4.—View into the rolling mill bay

12-in. finishing mill when making small sections. This stand also takes finishing rolls when heavier squares, angles down to  $1\frac{1}{2}$ -in., T's and I-beams are to be rolled. The speed of the mill is 110 r.p.m. A hot shear, with a maximum shearing pressure of about 125 tons and capable of cutting hot billets up to 90 mm.  $\times$  90 mm., is installed in front of the second stand.

The finishing mill consists of five 12-in. stands, driven by a D.C. motor of 1,000 h.p. with provision for speed variation from 200 to 400 r.p.m. Behind the last stand is placed a rotary shear for cutting rods running out up to 1-in. in dia. Beyond this is the mechanical cooling bed (Edwards), about 140-ft.  $\times$  7-ft. 9-in. The approach and discharge roller conveyors consist of DEMAG motor rollers. On the other side of the conveyor behind the first finishing stand of the 20-in. mill there is a skid cooling bank with sliding saw in front of it for cutting the heavier sections. The cold shear exerts a max. pressure of 175 tons and is designed to cut cold billets up to  $2\frac{3}{4}$ -in. square.

In front of the last stand of the 12-in. mill there are three stands in continuous arrangement for rolling strip. They are designed as three-roll stands, with the upper and lower backing-up rolls arranged in roller bearings, while the thin middle rolls run in plain bearings. The stands are driven separately, each by a motor of 150 h.p. Two reels are provided for making round and longitudinal coils.

DEMAG not only supplied all necessary cranes as auxiliaries for the steel and rolling mill plants, but also the plans for building the bays. A monorail grab-crab with a closed-type driver's cage suspended therefrom serves for lifting the coal from the bin to the upper platform of the producer house. The driving-gear parts are completely enclosed so as to warrant smooth running



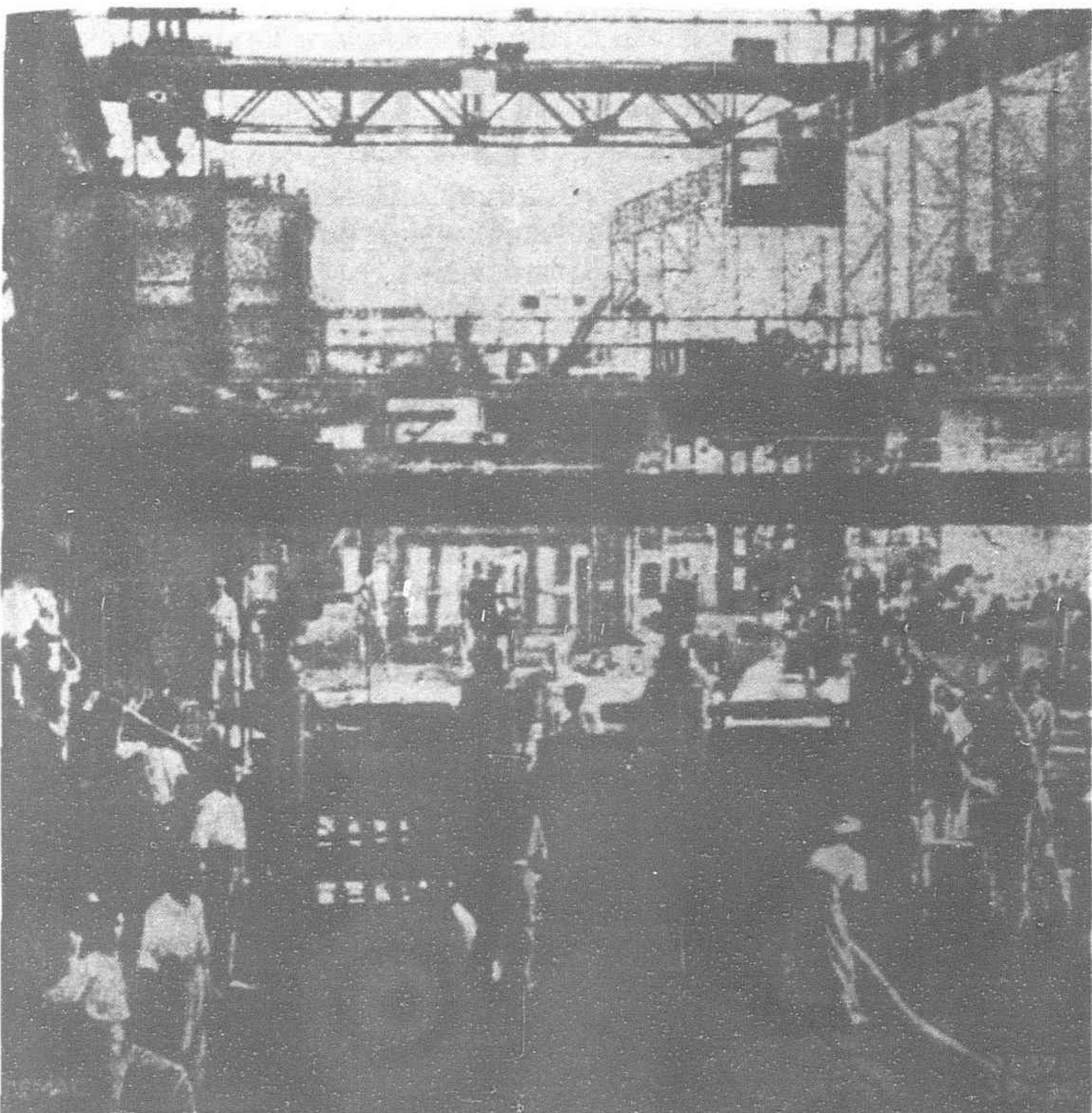


Fig. 5.—Two-stand roughing train with rolls of 500 mm. dia. and 1400 mm. barrel length. A third stand has been added

and a long life for them even in dusty air. The crab has a carrying capacity of 1,600 kgs.; the grab can take 0.75 cu.m. of coal. A common crane, the crab of which is equipped with a slewable frame to which a further frame with the charging arm can be attached in a simple manner, serves the scrap yard and the open-hearth furnace. Thus, the luffing of the arm during the charging operation is also effected by the lifting gear of the crane, whilst the boxes are tilted by hand. A magnet is suspended from the bottom block of the lifting gear for filling the boxes in the scrap yard. The magnet is of rectangular shape and has trunnions at either end from which a frame for taking up the boxes can be suspended. After the boxes have been set down upon the furnace platform, they are taken up by the crane with the charging device suspended therefrom and introduced into the furnace. The carrying capacity of the crane amounts to 7.5 tons and the capacity of the box to one ton.

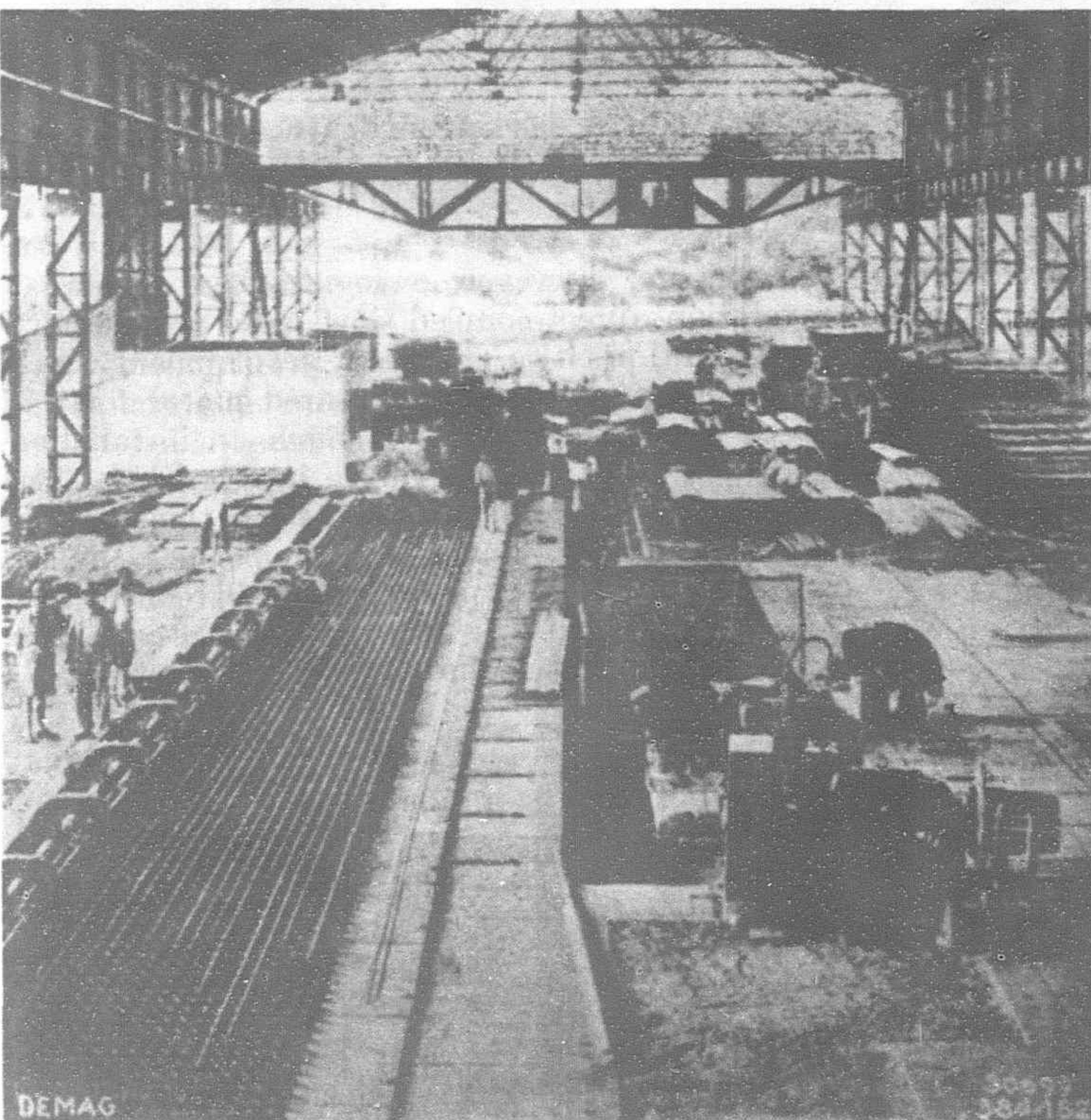


Fig. 6.—Edwards cooling bed and skid cooling bed

A casting crane of 40 tons carrying capacity in the casting bay, that is equipped with a 10-ton auxiliary lifting device for tilting, serves for charging the hot metal into the furnace as well as for transporting and teeming the steel taken from the furnace. The suspension device of the ladles is equipped with the well-known DEMAG laminated hooks that warrant the highest degree of safety during the transport of the hot metal. The same bay also accommodates an ordinary overhead travelling crane of five tons carrying capacity for transporting moulds and performing other work. For transporting ingots, this crane is equipped with a detachable magnet and with a special device in the bottom block that enables the magnet to be turned from the driver's stand, so that the ingots can be piled crosswise.

A 7.5-ton crane is arranged in the rolling mill bay that mainly serves for removing the rolls, and also for other work. A sling-chain crane at the end of the rolling mill bay, that is equipped with a cross-beam of 8 m. length and has a carrying capacity of five tons, serves for loading finished products.

The results achieved at this small steelworks and rolling mill plant are highly satisfactory, especially if due consideration is given to the fact that the entire personnel, from the melter foreman to the scrap loader, were practically new to the art of steel making and rolling.

## Shanghai, Harried by Restrictions, Sees Price Structure Dislocated

(Continued from page 268)

Food prices for January, 1941, in Chinese dollars, or yuan (per pound, unless otherwise specified), averaged as follows (prices as of October, 1939 in parentheses): White bread, 0.78 (0.31) per 14-ounce loaf; flour, 0.57 (0.23); filet, steak, 3.49 (1.01); beef, surloin roast, 2.23 (0.66); pork chops, 1.90 (0.58); chickens, 1.84 (0.69); eggs, 0.20 (0.10) each; Irish potatoes, 0.27 (0.10); Mandarin oranges, 0.62 (0.35); fresh milk, 1.00 (0.58) per pint; and coffee, 2.68 (2.08).

The rent index indicates that, while the cost to foreign residents of apartments and houses in Shanghai has considerably increased, the increase has not been so great as in the case of clothing, food, and utilities. Apartments were renting for 41.69 yuan per standard room of 225 square feet in January, 1941, compared with 27.50 per standard room in October, 1939; while detached and semi-detached houses were renting at 33.05 per standard room as compared with 20.47, an advance of more than 60 per cent in each case.

In the miscellaneous group, gasoline has increased from 2.80 to 3.40 yuan per American gallon; soap, from 32 cents, Chinese currency, to 46 cents, and the wages of a "boy," or indispensable Chinese servant, from 25.61 to 47.82 yuan per month. However, with the value of the yuan averaging between five and six cents in United States currency over a period of months, these prices, especially for Americans, still cannot be considered unduly excessive.

## Chinese Workers' Privations Greater—Relief Measures Still Inadequate

While western salaried workers have been adversely affected by this rise in the cost of commodities and services in Shanghai, the Chinese workers in the port have fared even worse—for, had the average Chinese worker retained his 1936 standard of living, his cost of living in January, 1941 would have been 5.97 times as great. During the past year, alone, the Municipal Council's Index of Cost of Living for Shanghai workers (Chinese), based on average 1936=100, has increased from 325.44 to 579.70, and the January, 1941 average stood at 597.19.

With strikes for higher wages, increased cost-of-living allowances have become numerous. At different times the local rice situation has assumed extremely serious proportions. Both the municipal council of the International Settlement and the municipal administration of the French Concession encouraged the importation of rice and flour and organized "cheap sales" of these commodities. But even when sold at no more than a nominal profit their cost was beyond the means of the poorer classes.

While its acute food shortages have been from time to time ameliorated, no permanent or satisfactory solution of Shanghai's food problem has yet been found. As long as its economic life continues harried by innumerable restrictions, the cost of living for its polyglot population will continue to rise.



# Electricity in the Paper Mill

By F. R. MASON, B.Sc. (Tech).

(Continued from July, 1941)

THESE formulæ apply to ordinary Hollander beaters only, driven by individual motors. If a number of beaters are group driven from a single motor a diversity factor of 80 per cent can generally be allowed with safety, and thus the total power obtained from the above reduced by 20 per cent.

The starting torque of a motor driving a group of beaters should be between twice and two-and-a-half times full load torque. As a constant speed is required the A.C. motor is generally most suitable, and in order to keep down the starting current a slip-ring motor is to be preferred. If power is taken from a public supply on which a rebate is made in the charge for power factor improvement, the beater drive is the most favorable for power factor correction, and a synchronous induction motor may be used.

In the case of a large motor driving a group of beaters the problem of the replacement and removal of belts and ropes arises. For this purpose a separate barring motor may be used with multi-push-button control arranged at points immediately adjacent to the pulleys. Another arrangement which the writer is inclined to favor is to utilize the main motor for barring purposes. By the use of a motor-operated liquid starter and a solenoid-operated stator switch a slip-ring motor can be made to move forward a little at a time with absolute smoothness. Push-buttons can be located adjacent to the pulleys on the lineshaft to give the greatest degree of protection and control to the men working on the ropes or belts. Fig. 13 shows two 800 h.p. geared motors driving a group of beaters utilizing

this system, while Fig. 14 shows a similar equipment located in a beater house basement. The master control in each case is on the power house switch-board, as shown in Fig. 15. A lock-out switch is provided to render the start push-buttons in the basement inoperative. All stop push-buttons are, however, left permanently in circuit for use in case of emergency.

In both cases a geared motor drive is used, the motor running at 735 r.p.m. and the gears reducing the speed to 120 r.p.m.

For smaller beater groups a chain drive is often installed; such an equipment is shown in Fig. 16.

In the case of individual drive the motor may be located on the beater floor proper, and the beater may be driven by V-ropes. The general arrangement of an individually driven potcher is shown in Fig. 17. Refiners have much the same characteristics as beaters and demand similar electrical equipment. In the case of

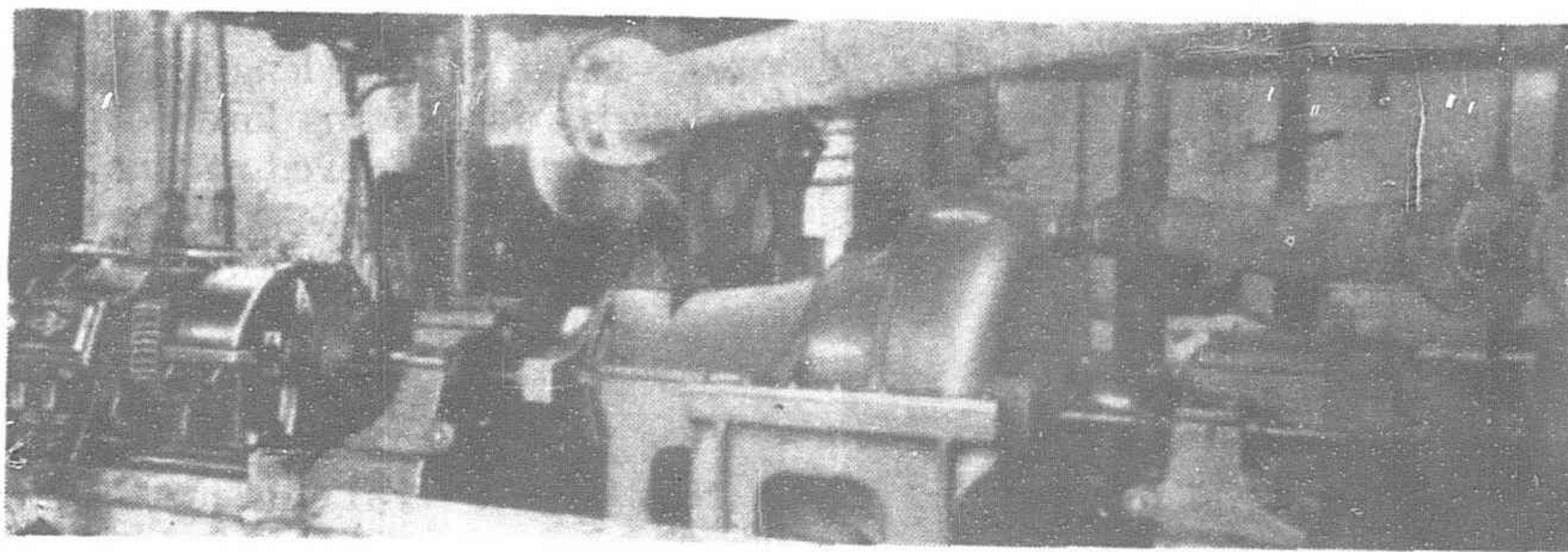


Fig. 18.—Geared Metrovick RW. slip-ring motor driving refiner

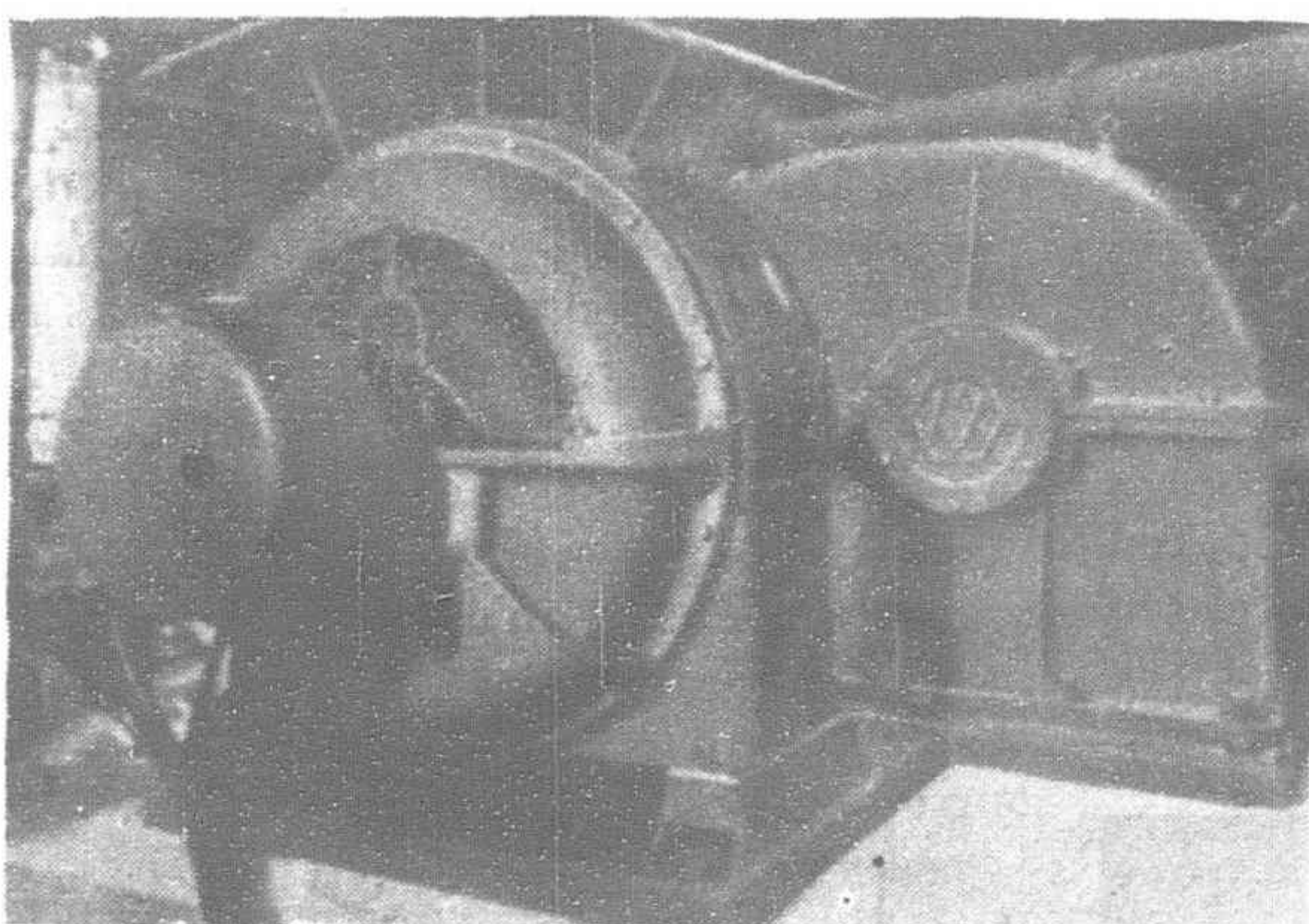


Fig. 14.—Metrovick 800 h.p. AIF induction motor driving beaters through double reduction Helical M-V gear

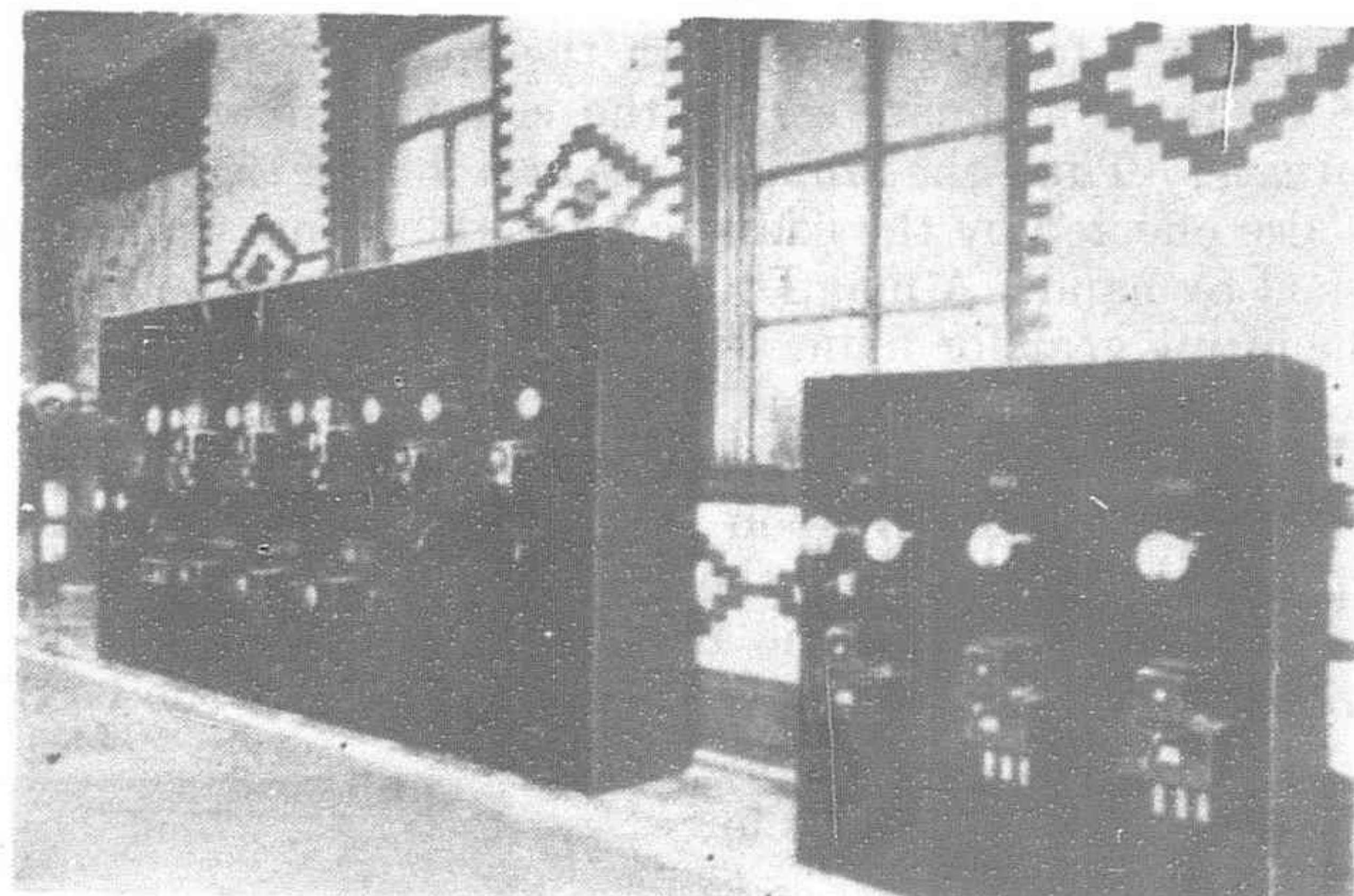


Fig. 15.—Main 3,300-volt switch-board and 440-volt switch-board in paper mill

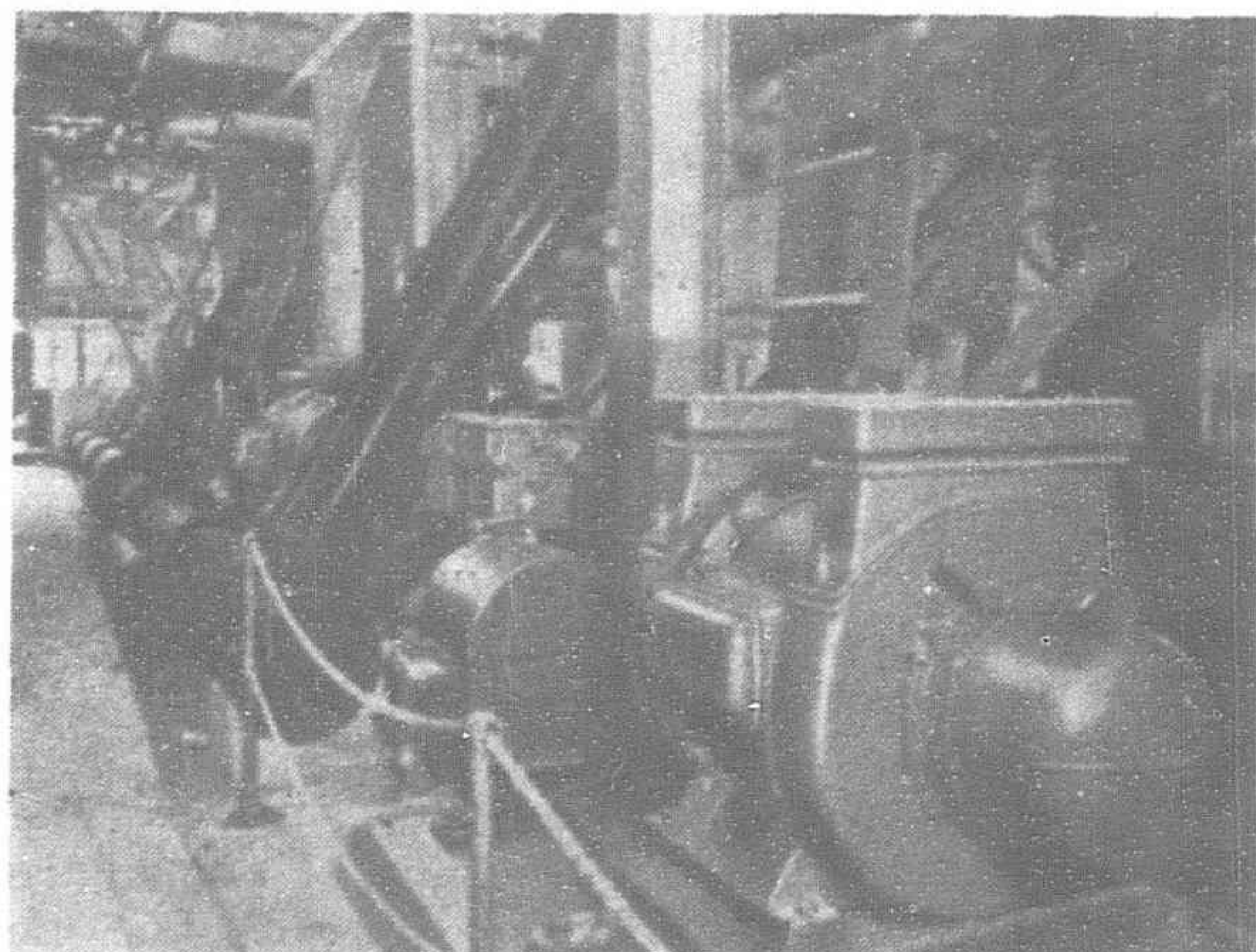


Fig. 16.—Four 170 h.p. and one 85 h.p. Metrovick RW. motors driving beaters by chain drive

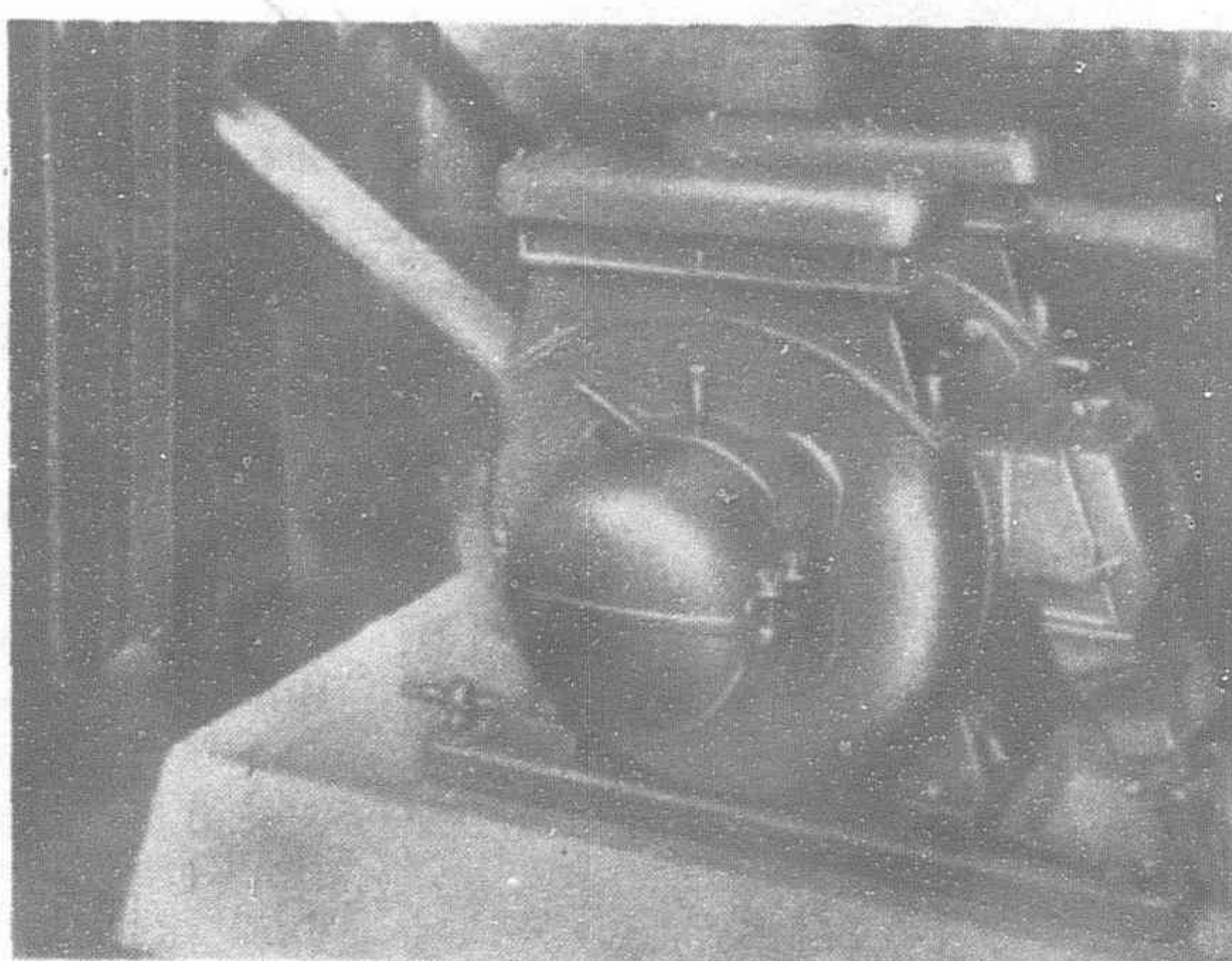


Fig. 19.—Back shaft drive by 85 h.p. Metrovick RW. hoseproof motor

individually driven refiners, however, owing to their somewhat higher speed of revolution, direct-coupled slow speed motors have up to now been the general practice. A recent development which shows considerable promise is the use of a geared motor for this duty. Such an installation is shown in Fig. 18. The advantages of this scheme are better efficiency, higher power factor and reduced first cost. Operating results have proved very satisfactory.

## Paper Machine Drives

The drive of the paper machine can be divided into two sections. The drive of the wet end auxiliaries and the drive of the machine proper.

## Wet End Auxiliaries

The old method was to adopt a group drive from the



backshaft, which was generally driven by a high speed engine. In converting such an installation to electric drive the best method is generally the direct replacement of the engine by a suitable motor retaining the backshaft itself. In the case of a new installation, however, the auxiliaries should be driven by individual motors, as this arrangement gives much greater flexibility in their disposition.

Group drive by a single motor on to the backshaft; in most cases a slip-ring motor is most suitable and should be designed to give a starting torque of at least twice full load. The enclosure can often be of the drip-proof type, as the motor can generally be raised well above floor level. Fig. 19 shows a typical arrangement of a group drive of the wet end auxiliaries. For very small machines a high-torque squirrel-cage motor fulfils the function at a reduced cost and with greater simplicity.

Individual drive of the auxiliaries provides a somewhat different problem. The pumps can be driven by squirrel-cage motors, and as these are located on or below floor level they are generally of the totally-enclosed fan-cooled type. The shake motor may be either shunt wound D.C. or an A.C. commutator machine. The A.C. commutator motor is generally to be preferred for this duty as it enables the control units for the whole of the wet end to be built up in the form of a combined switch-board with a common bus-bar chamber, and at the same time avoids the necessity of running a separate D.C. supply to the wet end.

### Machine Proper

The electric drive of the proper machine provides a problem to which there are so many widely differing and at the same time commonly applied practical solutions that one is forced to the conclusion that if the drive ideal from all points of view is to be found among them the paper trade has not recognized this fact.

We have three methods of A.C. drive, viz. :—

- Single A.C. commutator motor.
- Sectional multi A.C. commutator motors.
- Single induction motor and variable speed gear.

There are four methods of A.C.-D.C. drive, viz. :—

- Ward-Leonard with single driving motor.
- Buck and boost with A.C. booster motor and single driving motor.
- Ward-Leonard with multi-sectional driving motors.
- Buck and boost with A.C. booster motor and multi-sectional driving motors.

And, finally, there are six methods of purely D.C. drive, viz. :—

- Single shunt control D.C. motor.
- Ward-Leonard with all D.C. M.G. set and single driving motor.

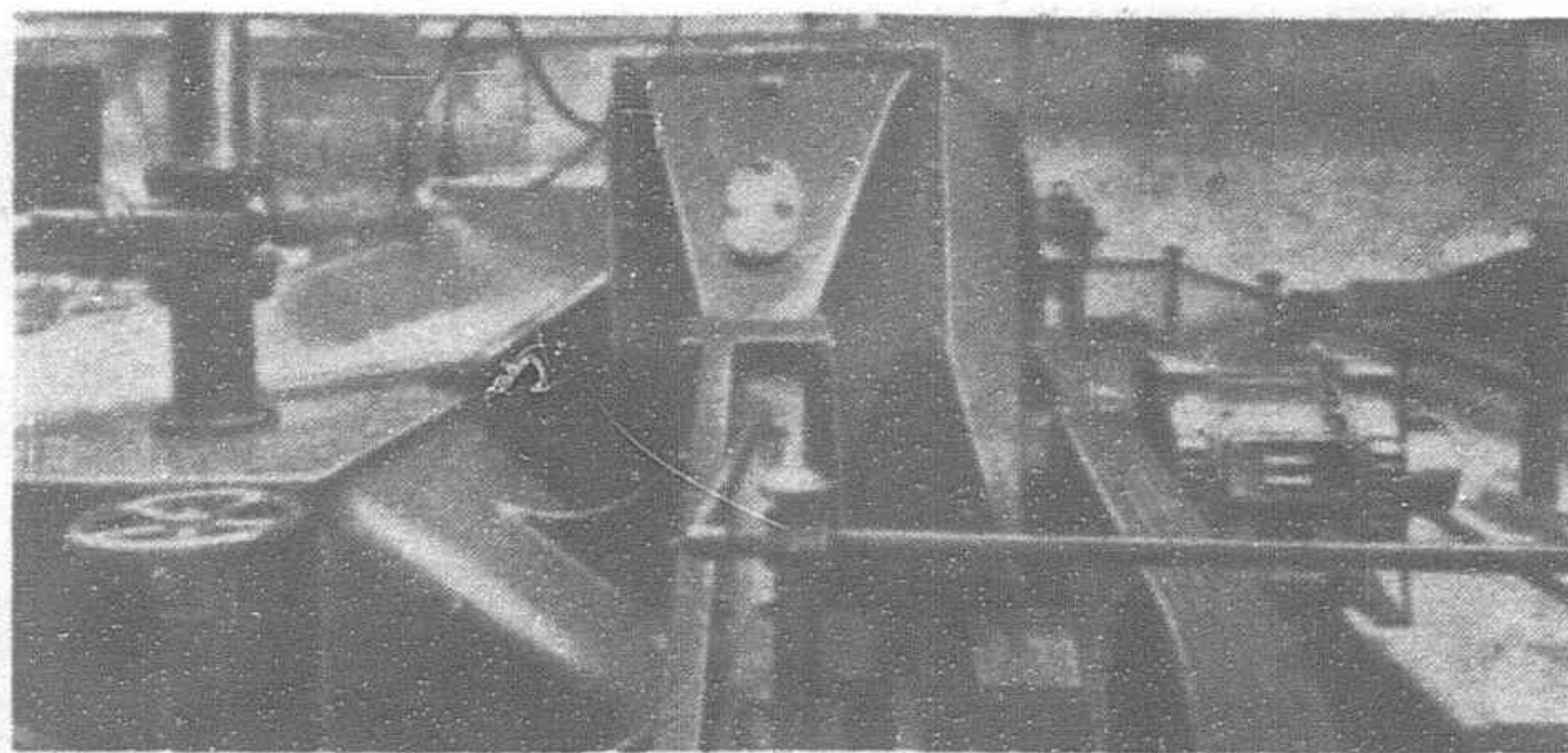


Fig. 17.—Individual drive to "Potcher" by a 45 h.p. Metrovick RW. slip-ring motor

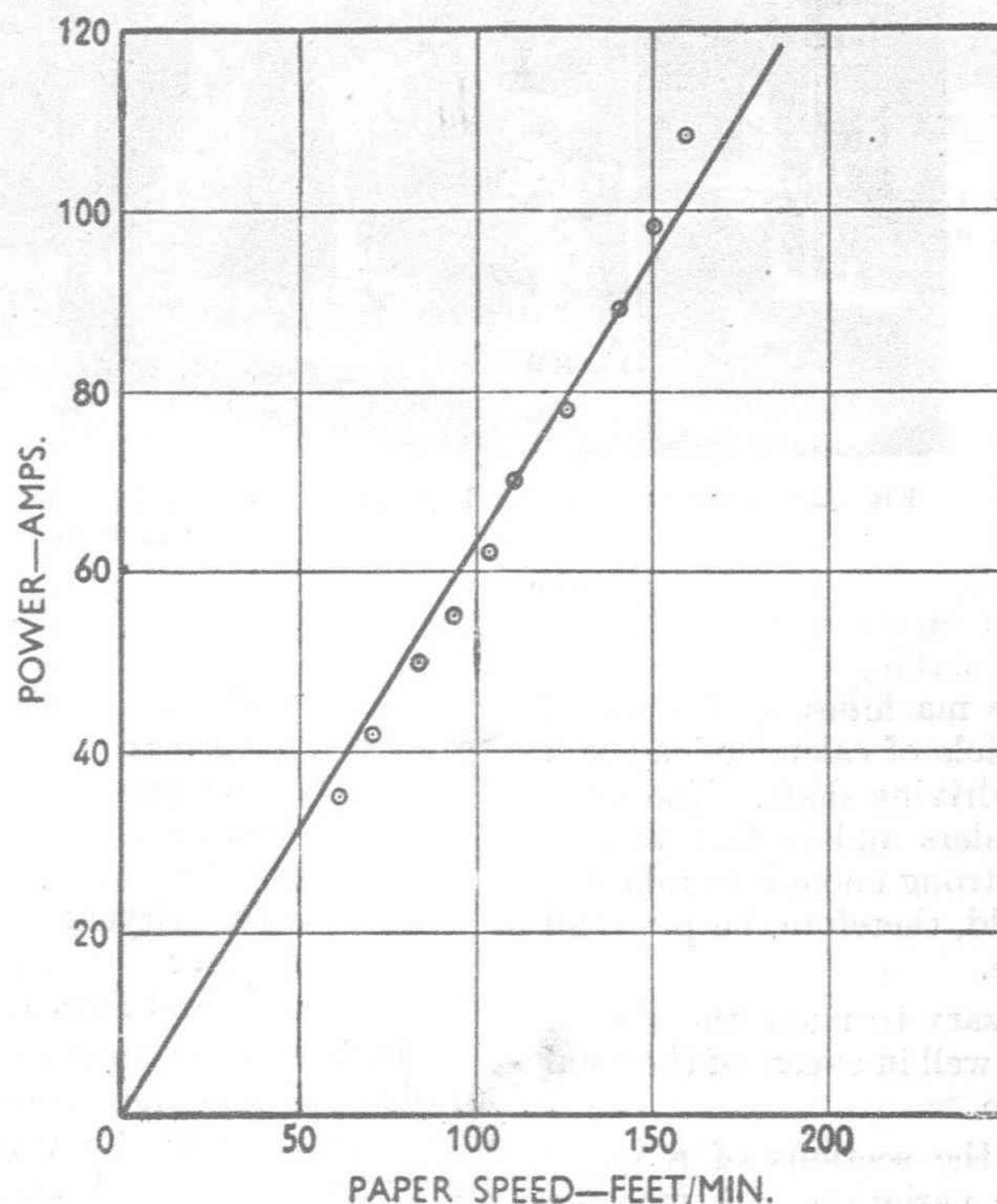


Fig. 20.—Curve showing load/speed characteristics of paper machine with constant setting

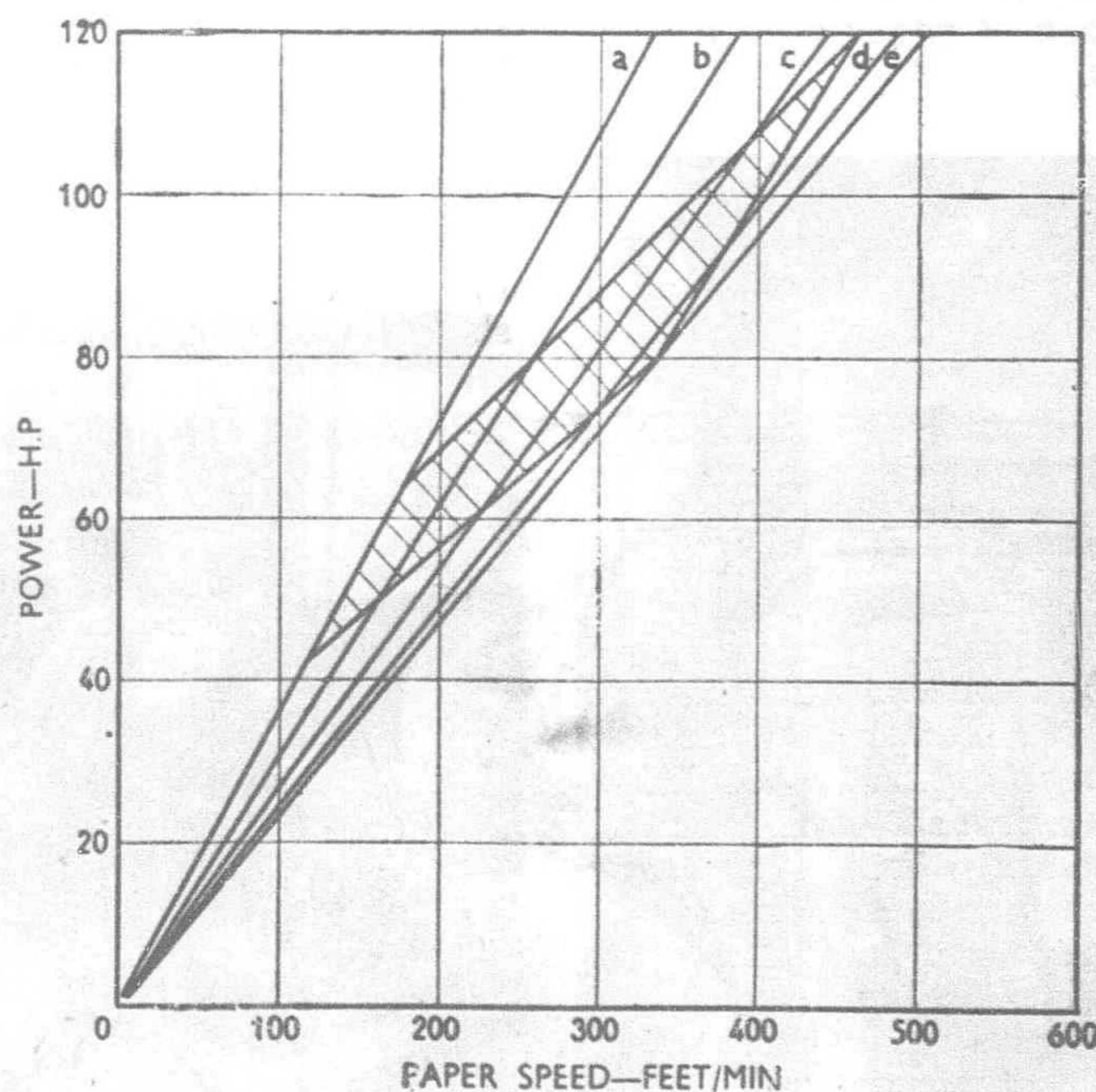


Fig. 21.—Curves showing load/speed characteristics of a paper machine with varying settings of calender presses and vacuum. Shaded area is the normal field of operation

Buck and boost with all D.C. booster set and single driving motor.

Ward-Leonard with all D.C. M.G. set and multi-sectional driving motors.

Buck and boost with all D.C. booster set and multi-sectional driving motors.

Ward-Leonard with prime mover driven-generator.

A separate paper could obviously be written on this most interesting subject, as each system of drive shows numerous variations. It is, therefore, proposed to confine these remarks in the main to the requirements of the paper machine drive, and only touch briefly on the principle methods of drive.

We have probably all heard of costly errors which have been made in the past in the application of unsuitable or inadequate electrical driving equipment to paper machines. One of the most dangerous pitfalls is the question of the power of the driving motor or motors. The following facts are the results of tests carried out on particular paper machines but may be safely taken as typical of the majority of paper machines.

The first point is demonstrated in Fig. 20. In this case the speed of the paper machine was varied over its working range without altering the setting in any way. Power readings were taken at particular speeds, and the results plotted as shown. This clearly demonstrated that the power absorbed is not under this condition a curve but a straight line passing through the origin. Under actual working conditions, however, the load on the presses, the suction on the wire, and the weight on the calender will be varied to suit different classes of paper and stock.

A second series of tests was therefore carried out on another paper machine, and the results are shown in Fig. 21. This shows that the power absorbed by a paper machine is not one curve but a family of curves. In the course of ordinary manufacturing operations the machine will tend to follow the higher torque curves at the lower speeds, and the heavier papers made under this condition will probably demand more weight on calenders and presses and a higher vacuum on the suction boxes. The converse applies, of course, at the higher speeds. The designer of the driving motor must, of course, be fully aware of these peculiarities otherwise he may take a single indicator diagram as a basis for the motor design, and fall very wide of the mark.

The question of the starting torque for a single motor drive is generally not a serious one, as the motor is only called upon to start up the drive light. The stored energy of the drive itself then assists in breaking down the starting



resistance of the individual sections as they are struck in. Therefore, if the motor has a starting torque of twice full load it is generally quite adequate if it is correctly designed in other respects. With individual drive of the sections, however, the question of starting torque becomes of vital importance.

The following table gives the results of tests carried out on a Foudrinier machine. Conditions were made as difficult as possible by allowing the machine to get thoroughly cold and putting the maximum weight on the presses and calenders.

| Section          | Starting torque expressed as a percentage of normal torque |
|------------------|------------------------------------------------------------|
| Couch .. .. .    | 242%                                                       |
| First Press .. . | 720%                                                       |
| Second Dryers .. | 540%                                                       |
| Calender .. . .  | 990%                                                       |

Tests carried out on a paper machine without making paper are subject to two corrections. The power absorbed by the dryers and presses is not sensibly affected by the paper. The power absorbed by the couch does, as might be expected, show considerable variation. Fig. 22 shows this variation and is based on actual tests on a particular machine.

The power absorbed by the calender and reel are subject to wide variations in practice depending not only on the weight on the calender but on the draw between these sections. When making a lightly calendered strong paper it is possible on some machines by the use of excessive draw on the reel to take the whole of calender load and even to drive back through the calender driving shaft. The same sort of thing may happen between calenders and in fact at any point on the machine where the paper is strong enough to take the tension. The drive to such sections should, therefore, be powerful enough to break the strongest paper made.

The factors mentioned make it necessary to make the sum of the powers of the individual section motor well in excess of the total power required by the machine as a whole.

The distribution of power between the sections of a paper machine will naturally show considerable variations. A machine for making greaseproof will have a heavy load on the couch, whereas on a tub-sizing machine or a high speed news machine a higher proportion of power will go to the dryers. The following table shows the actual percentage distribution of power on a medium size machine making banks and bonds.

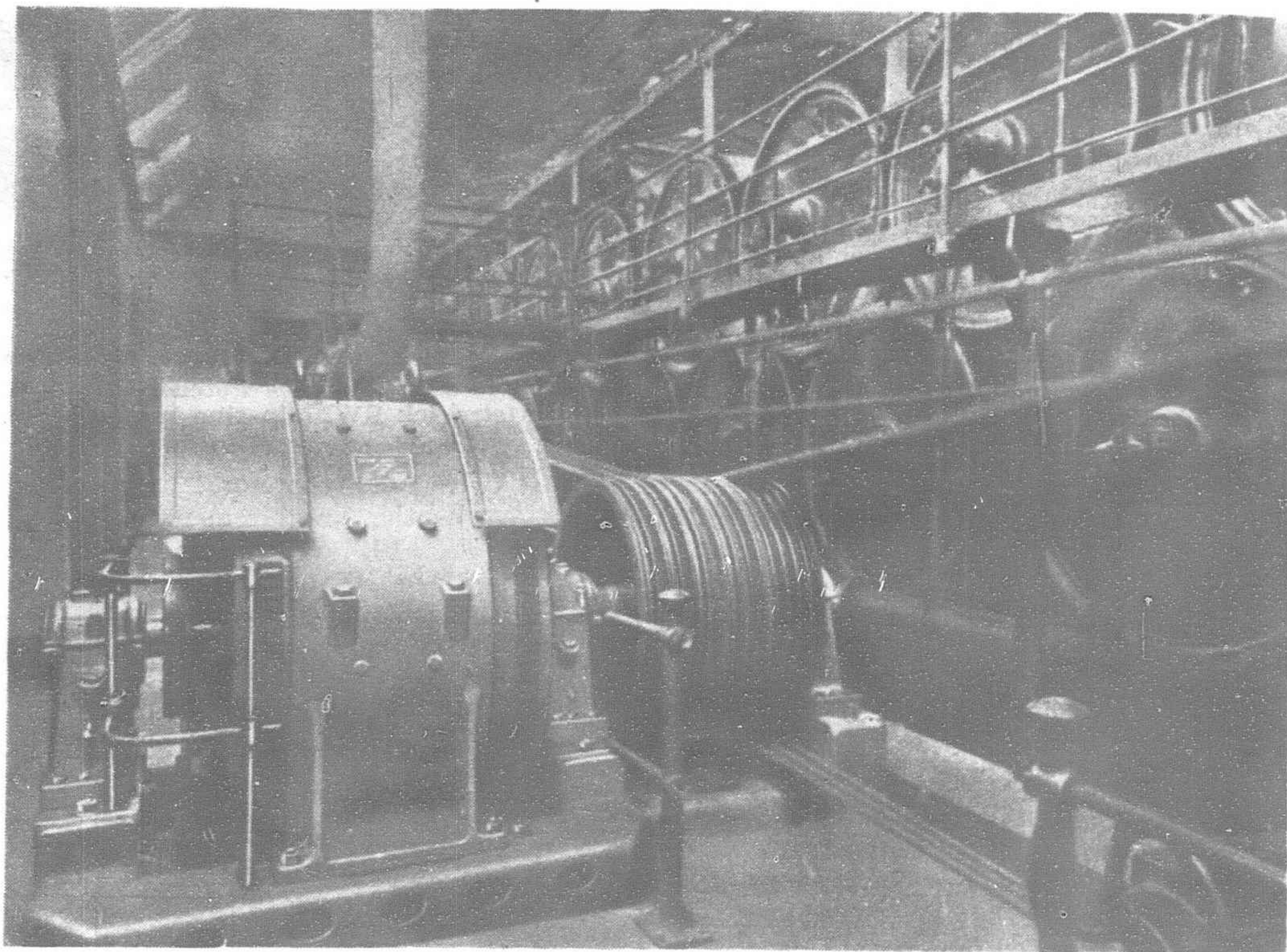


Fig. 23.—Metrovick 184 h.p. D.C. motor, 228/100 r.p.m., shunt control, driving a paper machine

| Section                    | Normal load as percentage of total load |
|----------------------------|-----------------------------------------|
| Couch .. .. .              | 8.1%                                    |
| First Press .. .           | 7.0%                                    |
| Second Press ..            | 4.3%                                    |
| Third Press .. .           | 4.3%                                    |
| First Dryers .. .          | 15.3%                                   |
| Second Dryers ..           | 9.6%                                    |
| Calender .. . .            | 9.3%                                    |
| Drive and Reel Light .. .. | 42.1%                                   |

In fairness, it must be stated that in this case the drive was of an old type and the figure of 42.1 per cent could doubtless be reduced appreciably by the substitution of a modern equipment. Nevertheless, it does demonstrate the appalling inefficiency of many cone pulley drives.

The foregoing cover the main points determining the power of motors for driving paper machines. The problems of stability and speed range are so much a matter of purely electrical design as to be beyond the scope of this paper. They are nevertheless of vital importance if the paper maker is to get the best out of his machine.

Fig. 23 shows a large slow speed motor driving a paper machine, while Fig. 24 shows a high speed geared motor driving a smaller machine.

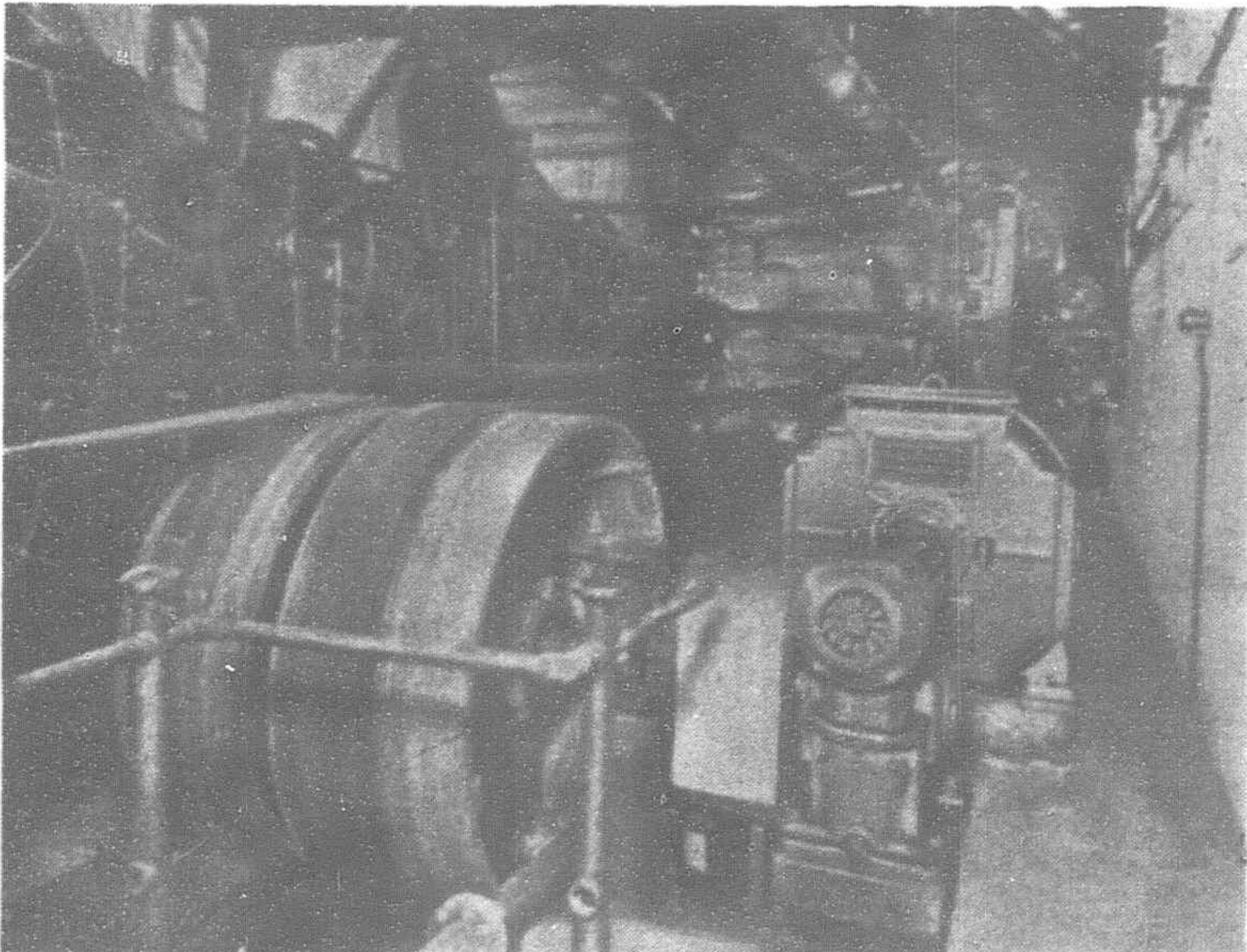


Fig. 24.—A Metrovick Q type 46 h.p. geared motor, 760/213 r.p.m., with shunt control, driving a paper machine

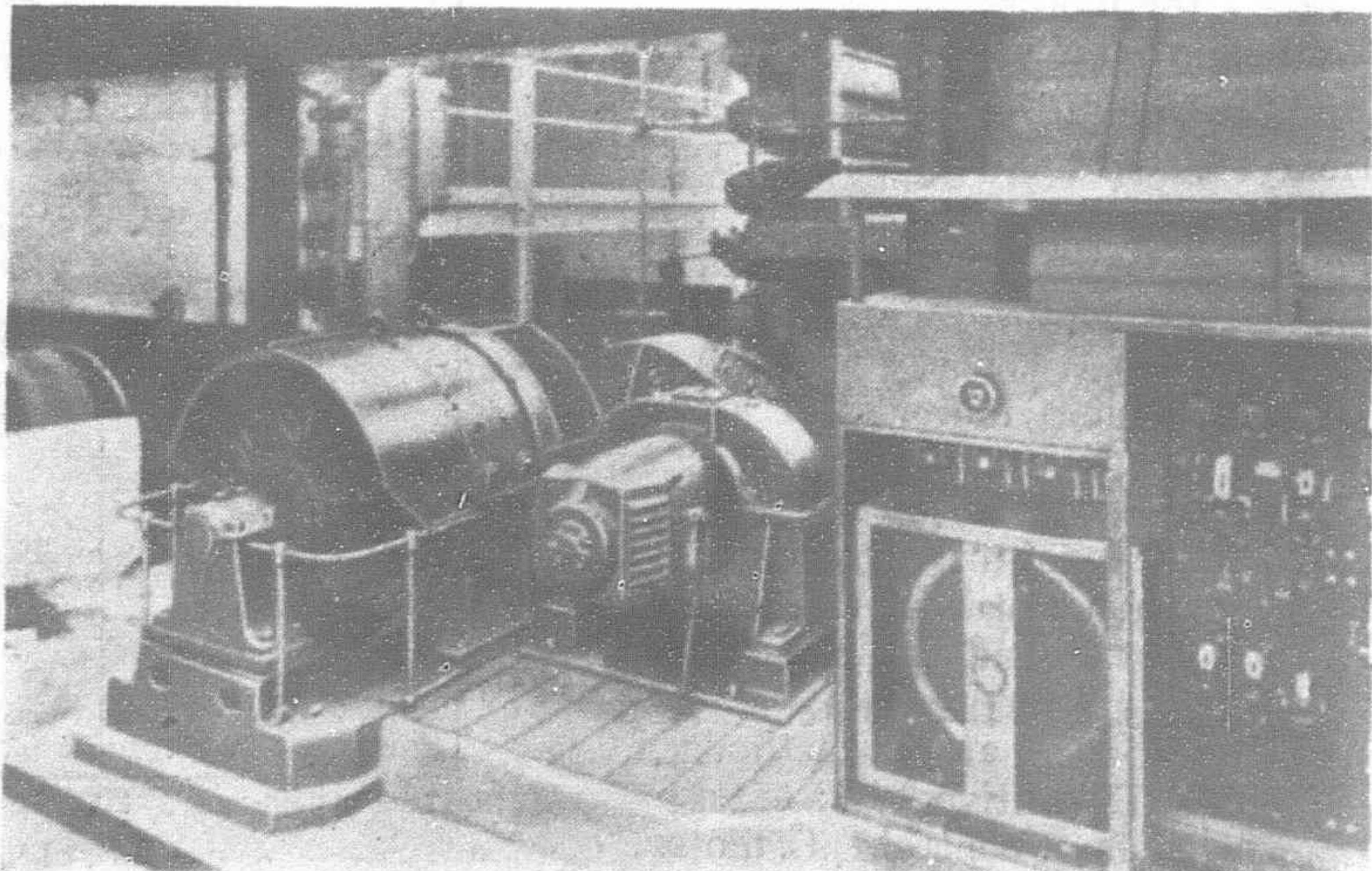


Fig. 25.—Metrovick 330 h.p., 1,000/470 r.p.m., geared shunt control main motor and 20 h.p. barring motor driving a super-calender



## Finishing Machinery

The problem of the super-calender drive is similar in many respects to the machine calender. A high starting torque, up to ten times normal load, variable load at any given speed and a wide speed range, are all common factors. Stability is of rather less importance, however, and rapidity of control in view of the comparatively short runs is of considerably greater importance. The power of the main motor can be generally fixed in a similar way to the paper machine motor. A pony motor can be provided to give the necessary break-away torque and the slow speed operation for feeding purposes. The pony motor must drive through an overrunning coupling so as to be thrown out of action when the main motor takes charge. The whole essence of the drive of the super-calender is control, and therefore in order to relieve the operator of unnecessary work, the equipment should be entirely automatic with push-button control stations at convenient points, giving "Start," "Creep," "Raise Speed," "Lower Speed" and "Stop." In the larger equipments it is often of advantage to incorporate a brake operated by the stop push-button to bring the calender rapidly to rest.

The control gear itself will be of the contactor type enclosed in a sheet steel cubicle. Fig. 25 shows a large electrically driven super-calender.

## Slitters and Reelers

The slitter drive is similar to the calender drive in certain respects. The starting torque is comparatively low, however, seldom exceeding  $1\frac{1}{2}$  times full load. A barring motor may be provided for slow speed operation but is unnecessary for starting purposes only. If a barring motor is fitted it should not have a torque capacity in excess of the main motor, as the reelerman will set his brake against the barring motor, and if its torque capacity is in excess of that of the main motor the main motor may fail to pick up the load when switched in.

Another point of great importance on reeler drives is the character of the acceleration. Jerky or over-rapid acceleration will break the paper, and therefore particular attention should be given to this point in designing the drive. Automatic control similar to the calender drive is equally desirable.

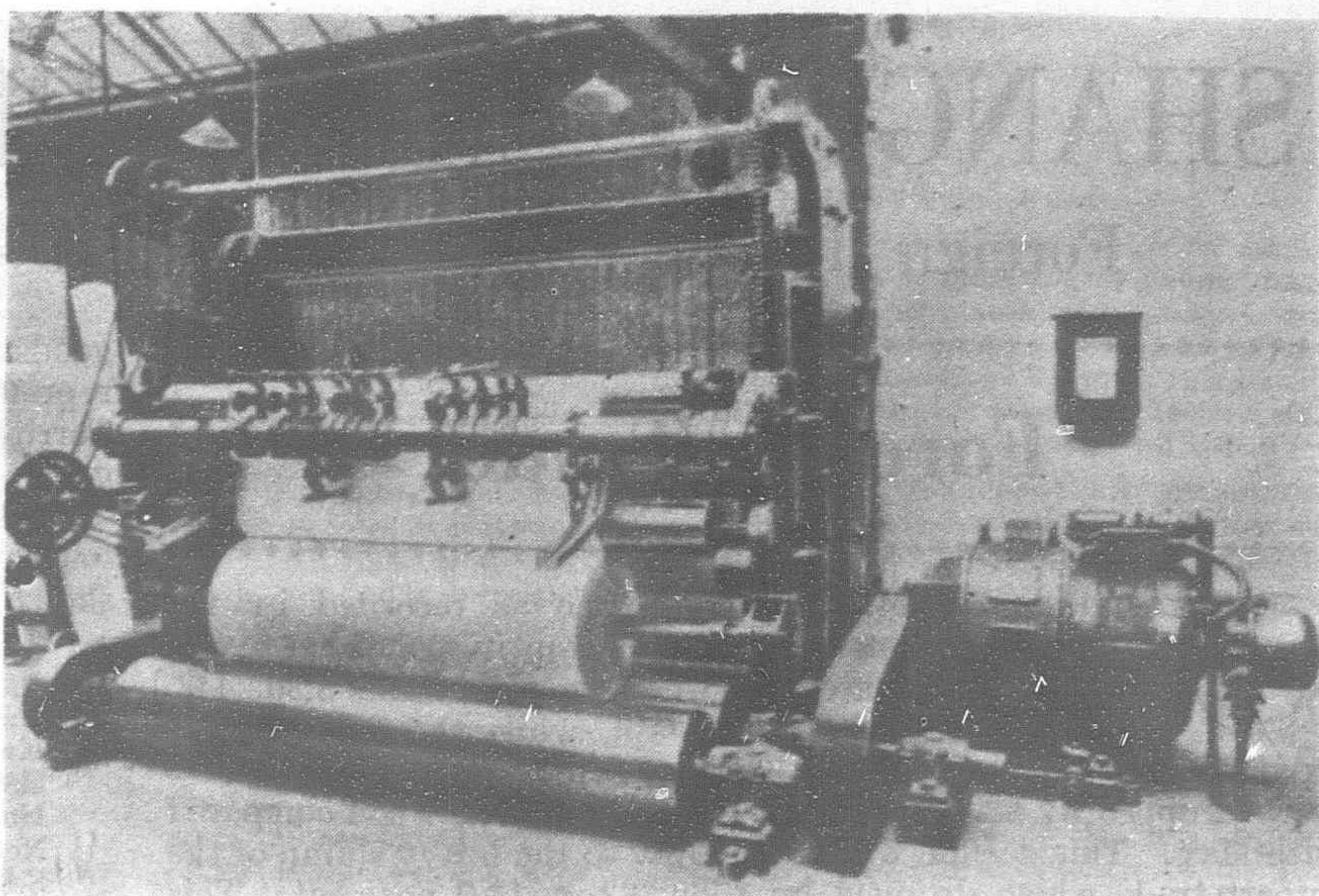


Fig. 26.—Metrovick 35 hp. 1,200/120 r.p.m. A.C. commutator motor driving high speed slitter and reeler

Fig 26 is a typical high speed reeler drive.

## Cutters

Cutters present few difficulties in the matter of drive, and a straightforward variable speed-equipment with push-button automatic control usually suffices.

## Distribution Systems

After spending a considerable sum on the plant in the paper mill it is a mistake to attempt to economize on the power wiring in the mill. One per cent voltage drop in the cable work is just as effective in increasing the coal bill as one per cent loss in the boilers. The main wiring of the mill is generally best carried out in paper-insulated lead-covered wire-armored cable, while shorter runs may be vulcanized rubber insulated.

The use of conduit should be limited to the less steamy parts of the mill on account of the difficulties experienced with internal condensation.

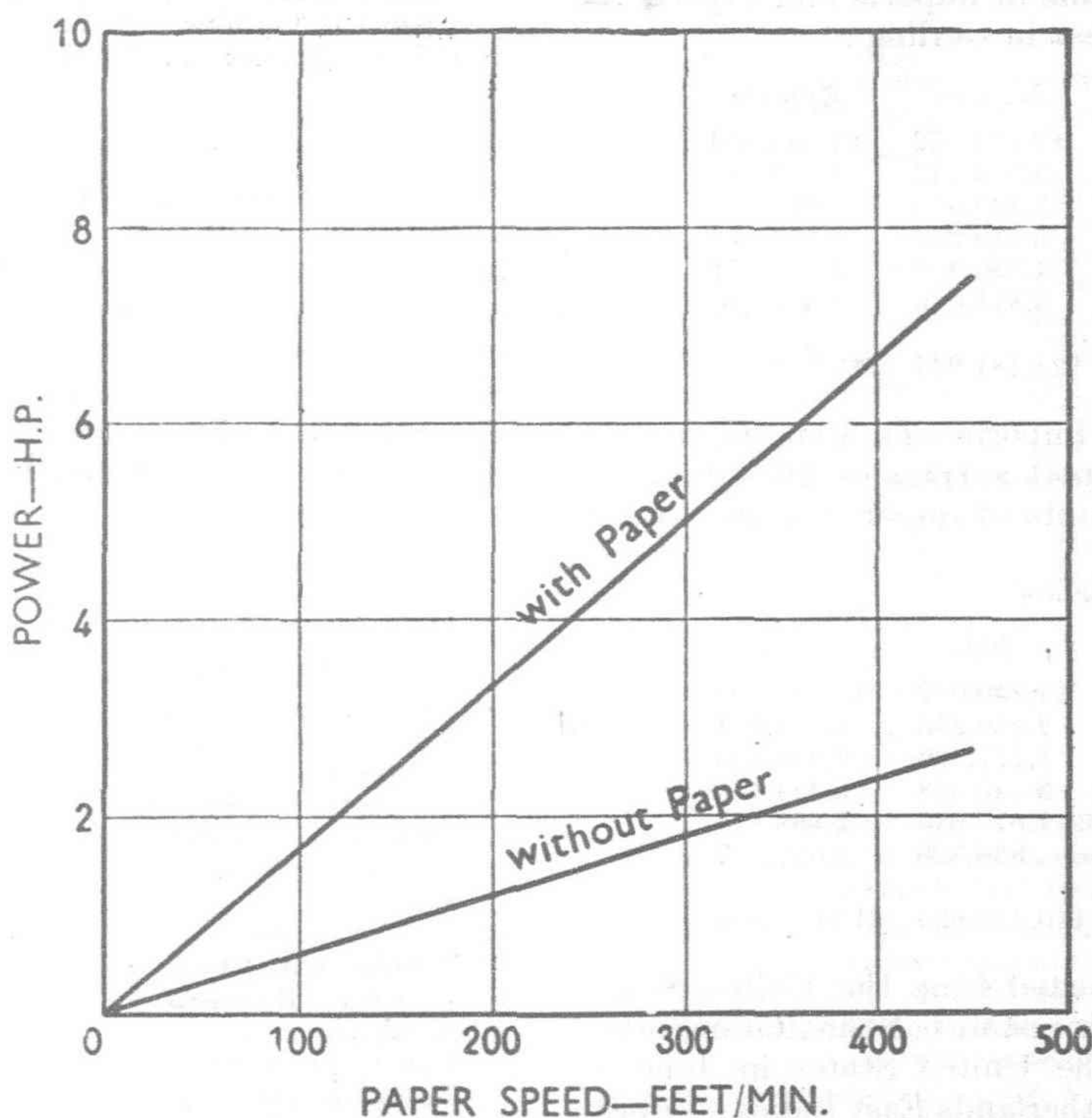


Fig. 22.—Curve showing variation of power absorbed by couch section—with and without paper on the machine

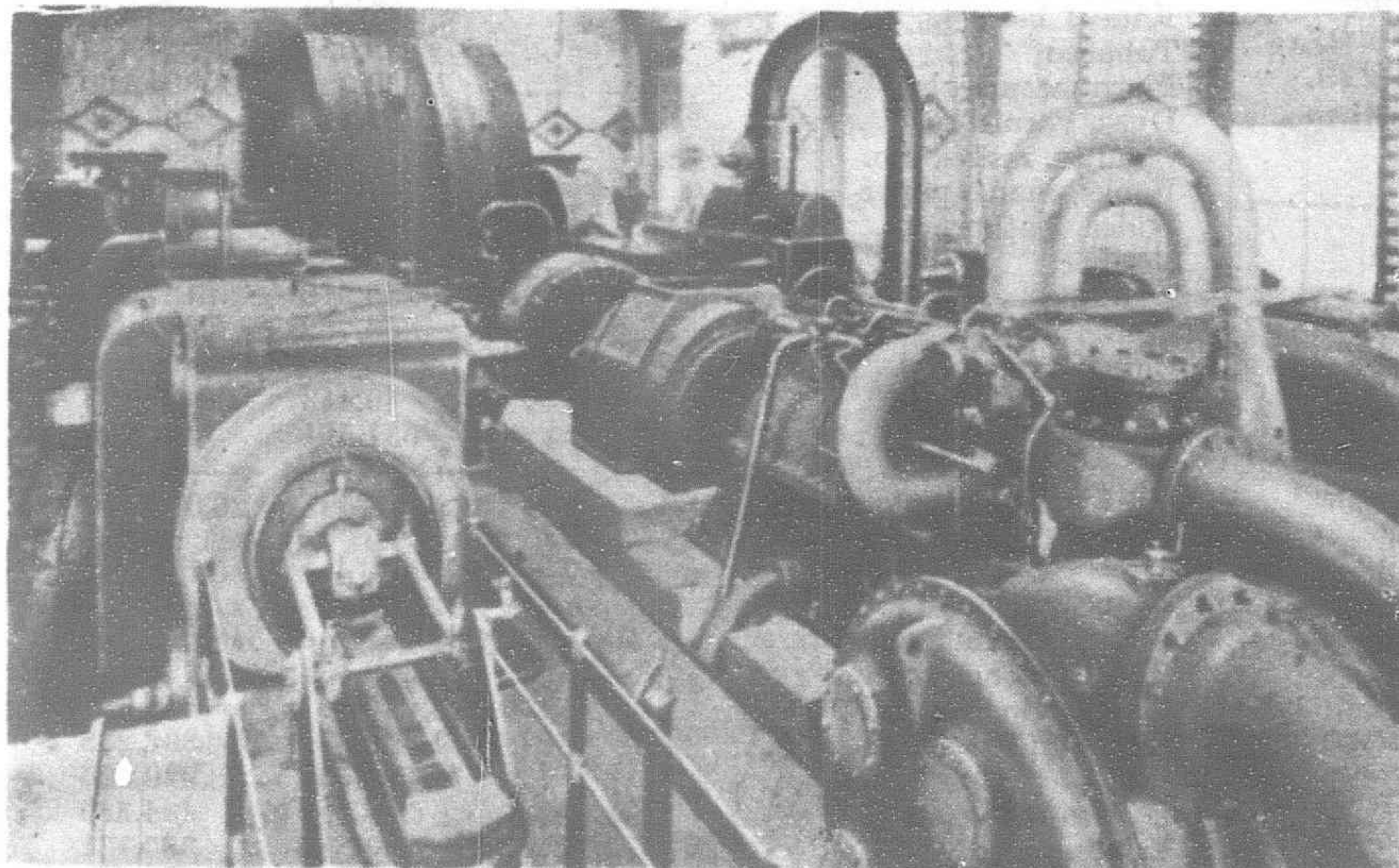


Fig. 27.—General view of power house during the change-over from engine drive to turbo-electric drive which was accomplished in 227 hours

## Change-over Program

A considerable proportion of the electrification work carried out recently has been the conversion of steam driven mills to electricity. The change-over is a task which must be very carefully planned if loss of production is to be avoided.

It may be said that work which at first sight appeared impossible has been accomplished in the allotted time as a result of careful co-ordination and programing. The prime factor to bear in mind is to erect and install every piece of apparatus which can be got into position before the actual shut-down. The second is to program every detail of the work during the change-over with sufficient margin to allow for unforeseen contingencies. If these two conditions are fulfilled by competent engineers, it is very rarely that the mill management are disappointed when the time to start up the mill arrives.

The author's acknowledgments are made to the Metropolitan-Vickers Electrical Co., Ltd., for permission to publish the information embodied in this paper.



# SHANGHAI—Market-Place of the Orient

Foreign Trade—Finance—Industries—Commodities—Living Costs

## Foreign Trade

SHANGHAI'S foreign trade for June as recorded by the Maritime Customs registered a drop in the value of net imports to the extent of Customs Gold Units 3,392,443, that is about \$40,000,000 fapi, while the value of net exports increased by \$17,691,635 fapi. In sterling, Shanghai's trade dropped by £299,457 or 4.2 per cent in June when compared with May. This decline was due mainly to the heavy slump of the import trade which dropped by £569,383 or 13.0 per cent. This heavy slump in import trade was offset by the increase of Shanghai's export trade by £269,926 or 10.0 per cent in exports.

The following table gives the value of imports and exports for the first six months of the current year in sterling :

|                   | Imports     | Exports     |
|-------------------|-------------|-------------|
| January .. .. .   | £2,874,572  | £1,644,530  |
| February .. .. .  | 3,974,642   | 1,724,387   |
| March .. .. .     | 3,425,059   | 2,247,250   |
| April .. .. .     | 5,719,236   | 2,473,678   |
| May .. .. .       | 4,380,409   | 2,702,774   |
| June .. .. .      | 3,811,026   | 2,972,700   |
| Jan.-June .. .. . | £24,184,944 | £13,765,319 |

These accumulative figures in imports and exports for the first six months of 1941 give an import surplus of £10,419,625 in Shanghai's foreign trade. The amounts of import surplus for the different months are :

|                  |    |    |    | IMPORT SURPLUS |             |
|------------------|----|----|----|----------------|-------------|
|                  |    |    |    | 1941           | 1940        |
| January .. .. .  | .. | .. | .. | £1,230,042     | £ 22,509    |
| February . . . . | .. | .. | .. | 2,250,255      | 1,571,951   |
| March .. .. .    | .. | .. | .. | 1,177,809      | 2,919,403   |
| April .. .. .    | .. | .. | .. | 3,245,558      | 5,224,449   |
| May .. .. .      | .. | .. | .. | 1,677,635      | 2,899,824   |
| June .. .. .     | .. | .. | .. | 838,326        | 3,022,337   |
| Jan.-June .. ..  | .. | .. | .. | £10,419,625    | £15,660,473 |

In June, more goods were imported from the United States than any other trading country. For instance, Shanghai imported \$17,335,125 worth of goods from the United States in June as against \$19,837,494 in May. The Netherlands East Indies occupied the second place in Shanghai's imports as \$8,878,026 worth of goods were imported in the month from the islands in June as against \$6,508,251 in May, an increase of \$2,369,775. Burma occupied the third place with \$7,369,261 worth of goods imported by Shanghai as against \$5,885,032 for May, an increase of \$1,484,229. The following table gives the positions of the different trading countries in Shanghai's imports in June and May :

| Imports from :                    | June, 1941   | May, 1941    |
|-----------------------------------|--------------|--------------|
| U.S.A. .. .. .                    | \$17,335,125 | \$19,837,494 |
| Netherlands India .. .. .         | 8,878,026    | 6,508,251    |
| Burma .. .. .                     | 7,369,261    | 5,885,032    |
| French Indo-China .. .. .         | 6,671,041    | 6,882,120    |
| Japan .. .. .                     | 4,839,515    | 5,268,052    |
| British India .. .. .             | 2,589,633    | 8,052,497    |
| Germany .. .. .                   | 2,093,965    | 922,196      |
| Great Britain .. .. .             | 2,057,014    | 2,391,965    |
| Australia .. .. .                 | 1,886,351    | 1,284,645    |
| Hongkong .. .. .                  | 1,266,508    | 1,659,551    |
| Siam .. .. .                      | 691,947      | 3,172,951    |
| Kwantung Leased Territory .. .. . | 406,131      | 689,424      |
| Brazil .. .. .                    | 280,881      | 3,558,389    |
| Other Countries .. .. .           | 5,101,100    | 4,537,274    |
|                                   | \$61,466,498 | \$70,649,841 |

As to exports, America occupied the first place also as that of imports. Shanghai exported in the month \$49,447,300 worth of

goods to the United States in June as against \$48,227,612 in May, representing an increase of \$1,219,688. The Kwantung Leased Territory in Manchuria occupied the second place with \$35,380,991 goods from Shanghai as against \$29,076,962 or an increase of \$6,304,029. Great Britain occupied the third place, Hongkong the fourth place, and the Netherlands East Indies the fifth place as shown in the following table :

| Exports to :                      | June, 1941    | May, 1941     |
|-----------------------------------|---------------|---------------|
| U.S.A. .. .. .                    | \$49,447,300  | \$48,227,612  |
| Kwantung Leased Territory .. .. . | 35,380,991    | 29,076,962    |
| Great Britain .. .. .             | 28,373,006    | 3,198,438     |
| Hongkong .. .. .                  | 28,116,166    | 32,267,431    |
| Netherlands India .. .. .         | 11,178,361    | 13,707,871    |
| S.S. & F.M.S. .. .. .             | 10,348,071    | 7,344,842     |
| Japan .. .. .                     | 9,184,559     | 8,623,119     |
| Philippine Islands .. .. .        | 8,322,611     | 9,402,187     |
| Siam .. .. .                      | 8,121,389     | 8,861,720     |
| British India .. .. .             | 7,641,773     | 15,839,754    |
| French Indo-China .. .. .         | 6,486,440     | 7,567,382     |
| Other Countries .. .. .           | 12,779,560    | 13,571,274    |
|                                   | \$215,380,227 | \$197,688,592 |

In the import group cereals and flour registered a major decline and so did raw cotton. On the export side, the group of animal products gained considerably, followed by raw silk. With the Chinese and Japanese credits frozen by America and Britain and with a number of important commodities banned from export by the Shanghai Customs in the latter part of July, it is difficult to see what will be Shanghai's trading condition in the future. The following list gives a detailed picture of the changes of Shanghai's trade in June and May :

|                               | NET IMPORTS | June G.U.    | May G.U.     |
|-------------------------------|-------------|--------------|--------------|
| Cotton P. G. Grey .. .. .     | .. .. .     | 631          | 1,623        |
| Piece white or dyed .. .. .   | .. .. .     | 14,076       | 25,837       |
| Piece printed .. .. .         | .. .. .     | 10,275       | 3,148        |
| Piece miscellaneous .. .. .   | .. .. .     | 4,480        | 9,484        |
| Cotton raw, yarn .. .. .      | .. .. .     | 2,997,352    | 5,662,411    |
| Cotton manu. Sundry .. .. .   | .. .. .     | 17,836       | 26,523       |
| Flax, ramie, hemp .. .. .     | .. .. .     | 78,389       | 167,599      |
| Wool and manu. .. .. .        | .. .. .     | 300,157      | 519,397      |
| Silk .. .. .                  | .. .. .     | 333,492      | 479,043      |
| Metal and ores .. .. .        | .. .. .     | 454,663      | 731,352      |
| Machinery and tools .. .. .   | .. .. .     | 416,233      | 564,576      |
| Vehicles and vessels .. .. .  | .. .. .     | 523,835      | 274,908      |
| Metal manu. .. .. .           | .. .. .     | 392,716      | 429,943      |
| Fishery products .. .. .      | .. .. .     | 106,868      | 54,114       |
| Canned goods .. .. .          | .. .. .     | 323,726      | 420,238      |
| Cereals and flour .. .. .     | .. .. .     | 6,067,995    | 8,998,640    |
| Fruits, seeds .. .. .         | .. .. .     | 295,749      | 249,227      |
| Medicinal goods .. .. .       | .. .. .     | 145,191      | 182,919      |
| Sugar .. .. .                 | .. .. .     | 1,590,981    | 1,158,067    |
| Wines, beer .. .. .           | .. .. .     | 137,232      | 125,248      |
| Tobacco .. .. .               | .. .. .     | 842,056      | 357,422      |
| Pharmaceuticals .. .. .       | .. .. .     | 1,282,388    | 834,169      |
| Dyes, varnishes .. .. .       | .. .. .     | 683,129      | 298,822      |
| Candles, resins, etc. .. .. . | .. .. .     | 1,611,098    | 1,581,854    |
| Books, maps, paper .. .. .    | .. .. .     | 1,533,168    | 967,174      |
| Hides, leather, etc. .. .. .  | .. .. .     | 433,093      | 341,554      |
| Timber .. .. .                | .. .. .     | 311,484      | 234,440      |
| Bamboo .. .. .                | .. .. .     | 185,318      | 127,334      |
| Coal, fuel, tar .. .. .       | .. .. .     | 869,768      | 217,041      |
| Chinaware, etc. .. .. .       | .. .. .     | 65,048       | 92,441       |
| Stone, earth .. .. .          | .. .. .     | 46,413       | 31,177       |
| Sundry .. .. .                | .. .. .     | 631,561      | 931,219      |
| Grand Total .. .. .           | .. .. .     | 22,706,501   | 26,098,944   |
|                               | NET EXPORTS |              |              |
| Animal products .. .. .       | .. .. .     | \$29,767,746 | \$14,584,392 |
| Hides, leather .. .. .        | .. .. .     | 10,369,132   | 7,298,466    |
| Fish products .. .. .         | .. .. .     | 535,141      | 476,734      |
| Beans and Peas .. .. .        | .. .. .     | 1,450,831    | 802,238      |
| Cereals .. .. .               | .. .. .     | 5,692,550    | 8,999,905    |
| Dyestuffs, vegetables .. .. . | .. .. .     | 331,089      | 404,380      |
| Fruits, preserves .. .. .     | .. .. .     | 330,882      | 385,131      |
| Medicinals .. .. .            | .. .. .     | 1,455,203    | 1,616,563    |
| Oils, tallow, wax .. .. .     | .. .. .     | 5,349,867    | 5,906,536    |



|                             |             |             |
|-----------------------------|-------------|-------------|
| Seeds .. .. .               | \$5,309,746 | \$2,206,154 |
| Spirituos beverages .. .. . | 1,569,599   | 1,170,481   |
| Sugar .. .. .               | 8,373       | 2,164       |
| Tea .. .. .                 | 5,376,969   | 5,233,390   |
| Tobacco .. .. .             | 1,787,004   | 1,809,767   |
| Vegetables .. .. .          | 1,614,716   | 718,881     |
| Vegetable products .. .. .  | 2,810,747   | 3,152,275   |
| Bamboo .. .. .              | 131,798     | 154,738     |
| Fuel .. .. .                | 1,179,486   | 671,710     |
| Rattan .. .. .              | 4,603       | 295         |
| Timber .. .. .              | 1,261,004   | 1,392,852   |
| Paper .. .. .               | 2,579,690   | 1,927,063   |
| Textile fibres .. .. .      | 35,592,384  | 28,966,547  |
| Yarn, thread .. .. .        | 27,699,640  | 25,346,372  |
| Piece goods .. .. .         | 17,488,379  | 18,691,766  |
| Other textiles .. .. .      | 13,153,527  | 11,101,387  |
| Ores, metals. .. .. .       | 20,427,563  | 29,063,189  |
| Glass, glassware .. .. .    | 3,195,154   | 3,483,775   |
| Stone, earth .. .. .        | 1,623,152   | 2,117,295   |
| Chemicals .. .. .           | 3,333,748   | 4,872,355   |
| Printed matter .. .. .      | 539,483     | 565,389     |
| Sundry .. .. .              | 13,402,671  | 14,566,402  |
| Grand Total .. .. .         | 215,380,227 | 197,688,592 |

## Finance and Industry

The exchange market in Shanghai in July was quiet and firm till President Roosevelt ordered the freezing of Chinese and Japanese credits on July 26. In the first few weeks of July, the Japanese banks continued to sell American dollars and it was estimated that they sold over U.S.\$10,000,000, causing a general firm trend of the exchange market. As soon as the order of freezing of Chinese and Japanese credits was received here, the speculators started to buy American dollars for short-covering and as a result, the value of the Chinese dollar dropped heavily. The following table gives the quotations of Shanghai's exchange market during the month of July:

|                |            |         |
|----------------|------------|---------|
| July 3 .. .. . | 3.25d.     | 5.28125 |
| " 4 .. .. .    | 3.265625d. | 5.28125 |
| " 5 .. .. .    | 3.234375d. | 5.21875 |
| " 7 .. .. .    | 3.203125d. | 5.21875 |
| " 8 .. .. .    | 3.1875d.   | 5.1875  |
| " 9 .. .. .    | 3.1875d.   | 5.1875  |
| " 10 .. .. .   | 3.203125d. | 5.21875 |
| " 11 .. .. .   | 3.203125d. | 5.21875 |
| " 12 .. .. .   | 3.21875d.  | 5.28125 |
| " 14 .. .. .   | 3.25d.     | 5.3125  |
| " 15 .. .. .   | 3.234375d. | 5.3125  |
| " 16 .. .. .   | 3.234375d. | 5.3125  |
| " 17 .. .. .   | 3.28125d.  | 5.40625 |
| " 18 .. .. .   | 3.234375d. | 5.34375 |
| " 19 .. .. .   | 3.234375d. | 5.3125  |
| " 21 .. .. .   | 3.234375d. | 5.3125  |
| " 22 .. .. .   | 3.234375d. | 5.3125  |
| " 23 .. .. .   | 3.234375d. | 5.3125  |
| " 24 .. .. .   | 3.234375d. | 5.34375 |
| " 25 .. .. .   | 3.234375d. | 5.34375 |
| " 26 .. .. .   | 3.140625d. | 5.1875  |
| " 28 .. .. .   | 3.09375d.  | 5.15625 |
| " 29 .. .. .   | 3.140625d. | 5.1875  |
| " 30 .. .. .   | 3.171875d. | 5.21875 |
| " 31 .. .. .   | 3.125d.    | 5.1875  |

The following is the full text of the two American General Licensing Regulations Nos. 58 and 59, issued under the decree freezing Chinese assets in U.S. currency and in the United States. It is under these decrees that Chinese import-export restrictions assets will be either freed or kept blocked.

### GENERAL LICENSE No. 58

I.—A general license is hereby granted licensing all transactions ordinarily incident to the importing and exporting of goods, wares and merchandising between the United States and any part of China other than Manchuria, provided the following terms and conditions are complied with:—

- (a) such transaction is not by or on behalf of or pursuant to the direction of
- (1) any blocked country other than China or
  - (2) any person within Manchuria or
  - (3) any national of any blocked country other than China unless such national is within China.

- (b) such transaction does not involve property in which
- (1) any blocked country other than China or
  - (2) any person within Manchuria or
  - (3) any national of any blocked country other than China unless such national is within China has at any time on or since the effective date of the order had any interest and
- (c) any banking institution within the United States prior to issuing confirming or advising letters of credit or accepting or paying drafts drawn or reimbursing themselves for payments made under letters of credit or making any other payment or transfer of credit in connection with any importation or exportation pursuant to this general license or engaging in any other transaction herein authorized shall satisfy itself (from the shipping documents or otherwise) that:
- (1) any such transaction is incident to a *bona fide* importation or exportation and is customary in the normal course of business and that the value of such importation or exportation reasonably corresponds with the sums of money involved in financing such transaction; and
  - (2) such importation or exportation is or will be made pursuant to all the terms and conditions of this license.

II.—Banking institutions within the United States engaging in any transactions authorized by this general license shall file promptly with the appropriate Federal Reserve Bank monthly reports setting forth the details of such transactions during such period including appropriate identification of the accounts which were debited or credited in connection with any such transaction.

III.—As used in this general license a person shall not be deemed to be "within China" unless such person was situated within and doing business within China on and since June 14, 1941.

### GENERAL LICENSE No. 59

I.—A general license is hereby granted licensing the offices within China of the following as generally licensed nationals:—

- (a) The Chase Bank
- (b) National City Bank of New York
- (c) Underwriters Savings Bank
- (d) American Express Company
- (e) Moscow Narodny Bank, Ltd.
- (f) Thos. Cook and Son Bankers, Ltd.
- (g) Hongkong & Shanghai Banking Corporation
- (h) Mercantile Bank of India, Ltd.
- (i) David Sassoon & Co., Ltd.
- (j) E. D. Sassoon & Co., Ltd.
- (k) E. D. Sassoon Banking Co., Ltd.
- (l) Chartered Bank of India, Australia & China, Ltd.
- (m) Nederlandsch Indische Handelsbank
- (n) Nederlandsche Handel Maatschappij

II.—This general license shall also authorize any such office of any such banking institution to finance imports and exports and transaction ordinarily incidental thereto between any part of China except Manchuria and any of the following:—

- (a) The United States
- (b) The American Republics as defined in general license No. 53
- (c) The British Commonwealth of Nations
- (d) The Union of Soviet Socialist Republics
- (e) The Netherlands East Indies

provided however that this authorization shall not be deemed to permit any payment transfer or withdrawal from any blocked account and provided further that any such office of any such bank prior to issuing confirming or advising letters of credit or accepting or paying drafts drawn or reimbursing themselves for payments made under letters of credit or making any other payment or transfer of credit in connection with any importation or exportation pursuant to this general license or engaging in any other transaction herein authorized shall satisfy itself (from the shipping documents or otherwise) that:—

- (1) any such transaction is incident to a *bona fide* importation or exportation and is customary in the normal course of business and that the value of such importation or exportation reasonably corresponds with the sums of money involved in financing such transaction; and
- (2) such importation or exportation is or will be made pursuant to all the terms and conditions of this license.

III.—This general license shall not be deemed to authorize any transaction by or on behalf of or pursuant to the direction of any person whose name appears on "the proclaimed list of certain blocked nationals" or involving property in which any such person has at any time on or since the effective date of the order had any interest.

IV.—Banking institutions within the United States making any payment transfer or withdrawal from the accounts of any such office of the aforementioned banking institutions shall file promptly with the appropriate Federal Reserve Bank monthly reports setting forth the details of such transaction during such period.

Regarding the recent order made by the British Government blocking assets, balances and securities of British residents in China, following a similar freezing order against Japanese and Chinese assets, the local British banks have issued a joint statement as follows:

"British banks in Shanghai have received a joint telegram from their London offices dated July 29, stating that H. M. Government have made a direction blocking, as from that date, all balances,



securities and gold in the United Kingdom of residents of China, including corporate bodies and any branches or subsidiaries of such bodies either in or outside China, similar to the direction which was made operative as from July 26 as regards residents of the Japanese Empire, Japanese Mandated Territory and Manchuria.

"The telegram goes on to give further particulars from which it appears that all sterling balances, securities and gold held in China by these Banks on behalf of residents of China or Japan are also blocked.

"Proposals have been made under which these banks will be able to continue to finance import and export trade between China and the sterling area and to carry out certain exchange transactions.

"The Banks are communicating with London in order to obtain further information regarding this.

"It is realized that the instructions as at present received entail serious inconvenience and hardship for residents in China, and the banks have therefore telegraphed to London asking for authority to make payments for limited amounts to meet necessary living expenses and other essential commitments.

"The public are asked to realize that the above restrictions have had to be brought in hurriedly and that it will be, of necessity, some little time before the position is fully clarified.

"It is understood that the American banks have received a similar notification from their London Offices."

As a retaliatory measure, the Shanghai Japanese Consulate-General issued a set of regulations to control the business activities between the Japanese and foreign nationals. The following is the full text of the Japanese Consul-General's notice regarding the control of transactions by Japanese with foreign nationals:

"Japanese Consul-General's Notice No. 19.

1.—"The acquirement or disposal of the following, by those parties hereby prescribed by the Japanese Consul-General, or by those who transact on behalf of such parties, shall be required to obtain the permission of the Japanese Consul-General.

- (a) "Rights regarding immovable property ;
- (b) "Enterprises, business and funds usable in enterprises or business ;
- (c) "Securities valued at more than Y20 ;
- (d) "Foreign and domestic exchange ; and
- (e) "Japanese military notes or their equivalent in Chinese currency amounting to more than Y500 monthly (in cases other than corporation, amounting to more than Y500 per household, including postal money orders which may be used as a means of payment in China) ;
- (f) "Foreign currencies other those mentioned in (e).
- (g) Movable properties other than those mentioned in (c) and (f) and amounting to more than Y.100.

2.—"The following, by parties prescribed by the Japanese Consul-General, or by others who transact for those prescribed by the Japanese Consul-General, shall require the permission of the Japanese Consul-General, excepting those cases wherein permission already has been obtained in accordance with regulations set forth in the preceding article (1).

- (a) To make or recover a loan ;
- (b) To contract or return a debt ;
- (c) To make or withdraw a monetary deposit ;
- (d) To accept or to pay a monetary Deposit ;
- (e) To balance credits and debts ;
- (f) To underwrite or accept a debt ;
- (g) To acquire or dispose of credits or debts not mentioned in the preceding sub-articles.

8.—The following, by parties prescribed by the Japanese Consul-General, or by others who transact for those prescribed by the Japanese Consul-General, and regarding property mentioned in article 1, sub-article (a), (c), (e), (f), (g), shall require the permission of the Japanese Consul-General, excepting those cases wherein permission already has been obtained in accordance with regulations set forth in the preceding articles 1 and 2.

- (a) To make or accept a deposit ;
- (b) To accept the return of a deposit ;
- (c) To return an accepted deposit ;
- (d) Lending or borrowing for use ;
- (e) Letting or hiring ;
- (f) Lending or borrowing for consumption ;
- (g) Sub-letting or sub-leasing.

4.—The provisions of articles 1 and 3, shall not be applicable to the following cases :

- (a) Receiving of payments as public taxes or rates ;
- (b) Receiving of salaries, allowances or the like by employees or other workers of those who have been prescribed by the Japanese Consul-General.

"The above is so notified."

By Tateki Horiuchi, Japanese Consul-General in Shanghai, July 28, 1941.

"Japanese Consul-General's Notice No. 20.

"In relation to Notice No. 19, Control of Transactions by Japanese With Foreign Nationals, dated July 28, 1941, the following is prescribed :

"United States nationals, including citizens of United States territories and the Philippine Commonwealth, United States corporations, United States-controlled corporations, and residents in territories of the United States.

"The above is so notified."

"by Tateki Horiuchi, Japanese Consul-General in Shanghai July 28, 1941.

In a supplement to Notice No. 20, the Japanese Consul-General issued the following notification :

"Japanese Consul-General's Notice No. 21.

- 1.—(a) United States of America.
  - (b) All territories and possessions of the United States of America.
  - (c) Philippine Commonwealth.
  - (d) Canada.
  - (e) The United Kingdom of Great Britain, and Northern Ireland.
  - 2.—(a) All designated countries and their administrative bodies or those under the similar category.
  - (b) Legal persons other than those in the countries designated in Notice O.
  - (c) Legal persons essentially coming under Notice B.
  - (d) Branch offices and other offices of legal persons located in the designated countries.
  - (Notice ; This rule applies only to legal persons other than the designated countries or to those owned by the designated countries).
  - (e) Persons holding citizenship of the designated countries and those who have their domicile in the designated countries.
- "The above is so notified."

By Tateki Horiuchi, Japanese Consul-General in Shanghai, July 28, 1941.

In addition, the Shanghai Customs banned the export of eleven commodities for export. The list of commodities banned was revised and increased to seventeen. Mr. K. Oyamada, Japanese Administrative Commissioner of Customs indicated that all persons wishing to export goods from Shanghai included in the list of banned goods may make applications for export. The Japanese Administrative Commissioner, however, could not state whether such applications for export license will meet with a favorable reply. Under present conditions, it was reported, applications for license to export goods on the banned list including their trans-shipment, re-export and shipment ex-bond abroad, excluding Japanese ports and occupied Chinese ports, must be made to the Japanese Administrative Commissioner of Customs. Mr. Oyamada, however, intimated that in certain cases, presumably where U.S. firms are concerned, applications should better be made both to the Japanese Consulate-General and the Customs. The revised list of goods prohibited to export includes the following articles :

Hides and leathers (excluding furs and skins) ; bran (including wheat and rice bran) ; rice and paddy ; wheat and wheat flour ; dyes, dyestuffs, varnishes, paints, enamels, pigments, etc. ; vegetable oils, edibles ; rubber (excluding manufactures thereof) coal ; cotton (raw) and cotton waste ; hemp, jute and ramie ; sheep's wool ; ores of all kinds ; metals of all kinds ; machinery ; chemicals and chemical compounds for medical and industrial uses (excluding vegetable compounds).

## Industries of the Port

Industrial conditions in Shanghai in the month of May were not as good as in April. For instance, the production of the cotton mills in Shanghai dropped by four per cent when compared with April and ten per cent when compared with March. The 64 cotton mills continued to operate 2,180,000 spindles and 26,800 looms in the city. Of the total, 21 mills were managed by the Chinese with a total of 617,000 spindles and 4,600 looms ; 38 mills were managed by the Japanese with a total of 1,328,000 spindles and 18,500 looms ; and five mills were managed by the British with a total of 241,000 spindles and 3,700 looms.



These cotton mills turned out a total of 68,000 bales of cotton yarn in May as against 70,000 bales in April or a decrease of 2,000 bales. Total production of cotton cloth in the month was 1,073,000 pieces as against 1,095,000 pieces for April or a decrease of 22,000 pieces. Of the total, 33,000 bales of yarn were produced by the Chinese mills as against 35,000 bales for April; 29,000 bales of yarn were produced by the Japanese mills as against 30,000 bales for April; and 5,000 bales of yarn were turned out by the British mills. As to cotton cloth, 223,000 pieces were produced by the Chinese mills as against 232,000 pieces for April; 736,000 pieces by the Japanese mills as against 755,000 pieces for April; and 114,000 pieces by the British mills as against 108,000 pieces for April.

In the month, the 64 mills in Shanghai consumed a total of 236,000 piculs of raw cotton as against 243,000 piculs for April or a decrease of 7,000 piculs. Of the total, 114,000 piculs were consumed by the Chinese mills, 101,000 piculs by the Japanese mills and 10,000 piculs by the British mills. The following tables give the working conditions of the 64 mills in Shanghai during the month of May:

|                      |    | Number of<br>Mills | Number of<br>Spindles | Number of<br>Looms |
|----------------------|----|--------------------|-----------------------|--------------------|
| Chinese cotton mills | .. | 21                 | 616,608               | 4,595              |
| Japanese mills       | .. | 38                 | 1,328,418             | 18,525             |
| British mills        | .. | 5                  | 241,000               | 3,686              |
| Total                | .. | 64                 | 2,186,026             | 26,806             |

|                |    | Consumption<br>of cotton<br>(piculs) | Production<br>of yarn<br>(bales) | Production<br>of Cloth<br>(pieces) |
|----------------|----|--------------------------------------|----------------------------------|------------------------------------|
| Chinese mills  | .. | 114,637                              | 33,843                           | 222,610                            |
| Japanese mills | .. | 101,983                              | 29,420                           | 736,400                            |
| British mills  | .. | 19,592                               | 5,805                            | 114,070                            |
| Total          | .. | 236,212                              | 68,068                           | 1,073,100                          |

That the industrial condition in May was not as good as that of April can also be seen from the amount of electricity consumed by industrial establishments in the International Settlement of Shanghai. According to the latest reports, the Shanghai Power Company generated a total of 51,733,000 kw.h of electricity in the month of May as against 56,242,000 kw.h for the month of April. Of the total, 41,841,000 kw.h was consumed by the industrial establishments as against 44,838,000 kw.h for the month of April. In the French Concession, electricity consumed in the month of May was 4,648,000 kw.h as against 5,100,000 kw.h for the month of April.

|             | Total in<br>Settlement<br>(kw.h) | Industrial<br>consumption<br>(kw.h) | Commercial<br>consumption<br>(kw.h) | Total in French<br>Concession<br>(kw.h) |
|-------------|----------------------------------|-------------------------------------|-------------------------------------|-----------------------------------------|
| May, 1941   | 51,733,000                       | 41,841,000                          | 5,125,000                           | 4,648,000                               |
| April, 1941 | 56,242,000                       | 44,838,000                          | 6,092,000                           | 5,100,000                               |
| May, 1940   | 72,254,000                       | 60,571,000                          | 5,958,000                           | 5,828,000                               |

## Commodities and Living Costs

(1) *The Rice Market*: The rice market was rather active in the month of July. Total turnover in the month was 427,000 bags and 29,300 tons of foreign rice as against 400,000 bags and 28,000 tons for the month of June. Several times speculators tried to push up the prices of rice in view of the tense situation in French Indo-China. However, the price remained unchanged till the last few days when the American and British Governments ordered the freezing of Chinese and Japanese credits. In the past few days, prices increased by several points. The following table gives the total turnover of rice in different business days of the month:

| July |    | Total Turnover             |
|------|----|----------------------------|
| 2    | .. | 22,000 bags and 1,200 tons |
| 3    | .. | 22,000 " 1,100 "           |
| 4    | .. | 15,000 " 2,000 "           |
| 5    | .. | 20,000 " 1,000 "           |
| 7    | .. | 33,000 " 2,000 "           |
| 8    | .. | 25,000 " 1,500 "           |
| 9    | .. | 10,000 " 1,500 "           |
| 10   | .. | 6,000 " 600 "              |

|         |    |                              |
|---------|----|------------------------------|
| July 11 | .. | 17,000 bags and 1,600 tons   |
| " 12    | .. | 6,000 " 1,000 "              |
| " 14    | .. | 13,000 " 700 "               |
| " 15    | .. | 16,000 " 800 "               |
| " 16    | .. | 20,000 " 700 "               |
| " 17    | .. | 13,000 " 1,000 "             |
| " 18    | .. | 8,000 " 1,000 "              |
| " 19    | .. | 20,000 " 800 "               |
| " 21    | .. | 12,000 " 600 "               |
| " 22    | .. | 6,000 " 700 "                |
| " 23    | .. | 20,000 " 1,000 "             |
| " 24    | .. | 6,000 " 1,000 "              |
| " 25    | .. | 14,000 " 1,600 "             |
| " 26    | .. | 25,000 " 1,800 "             |
| " 28    | .. | 25,000 " 2,000 "             |
| " 29    | .. | 18,000 " 1,000 "             |
| " 30    | .. | 15,000 " 600 "               |
| " 31    | .. | 20,000 " 500 "               |
| Total   | .. | 427,000 bags and 29,300 tons |

Prices increased much in the latter part of July when compared with June. For instance, the price of first grade Saigon rice on June 30 was \$129.50 but on July 31 was \$132.00. The price of Wusih rice on June 30 was \$136 but on July 31 was \$142. The following table gives the prices of rice in the month under review:

|                     | July 10  | July 17  | July 31  |
|---------------------|----------|----------|----------|
| First grade Saigon  | \$134.00 | \$128.00 | \$132.00 |
| Second grade Saigon | 125.50   | 116.00   | 122.00   |
| Broken rice         | ..       | 90.50    | 94.50    |
| Wusih rice          | 135.50   | 142.00   | 142.00   |
| Nankong rice        | 144.50   | 140.00   | 152.50   |
| Chinkoo rice        | 143.50   | 141.50   | 152.00   |
| Changchow rice      | 139.00   | ..       | ..       |

(2) *The Cotton Market*: In July, the Shanghai cotton market was very active with prices increased considerably when compared with the previous month. Total turnover in the month was 225,880 piculs as against 193,786 piculs for June and 100,131 piculs for May. Of the total of 225,800 piculs of cotton, 28,721 piculs were Chinese native cotton and 197,159 piculs were foreign cotton, as shown in the following table:

|                     | Chinese<br>Cotton | Foreign<br>Cotton | Total<br>Turnover |
|---------------------|-------------------|-------------------|-------------------|
| Week ending July 5  | 5,378             | 28,158            | 33,536            |
| Week ending July 12 | 5,578             | 51,502            | 57,080            |
| Week ending July 19 | 5,304             | 65,334            | 70,638            |
| Week ending July 26 | 12,461            | 52,165            | 64,625            |
| Total               | 28,721            | 197,159           | 225,880           |

Price of Brazilian cotton increased by \$45 when compared with June 30, price of Rangoon cotton increased by \$50 when compared with the end of June, while price of U.S. Middling increased also by \$50 per picul. The price of native cotton increased also. For instance, the price of Hooche on June 30 was \$212 but on July 31 was \$247.50. The following table gives the prices of different kinds of raw cotton on June 30 and July 31:

|               | June 30  | July 31  |
|---------------|----------|----------|
| U.S. Middling | \$495.00 | \$540.00 |
| Brazilian     | 470.00   | 515.00   |
| Rangoon       | 232.00   | 270.00   |
| Hooche        | 212.00   | 247.50   |

(3) *The Cotton Yarn Market*: The local cotton yarn market in the month of July was not as active as before as most of the speculators had turned their interests to the new Cotton Yarn Exchange, which was organized for forward trading. In the old cotton goods exchange, total turnover for July was 110,400 bales as against 165,325 bales for June. Of the total, 102,680 bales were bought by speculators and 7,720 bales by Hongkong merchants. Other outport merchants remained inactive during the entire month. Meanwhile, in the new Cotton Yarn Exchange, total turnover for July was 340,000 bales, three times more than the total turnover of the old exchange. Of the total, all were speculative trading. The following table gives the turnovers in the two exchanges:

|                    | Old Exchange  | New Exchange  |
|--------------------|---------------|---------------|
| June 30 to July 5  | 17,950 bales  | 82,500 bales  |
| July 7 to July 12  | 29,000 "      | 104,000 "     |
| July 14 to July 19 | 30,730 "      | 86,370 "      |
| July 21 to July 26 | 32,750 "      | 68,000 "      |
| Total              | 110,400 bales | 340,000 bales |



Prices of cotton yarn increased by \$40 to \$50. For instance, price of 20's Double Horse on June 28 was \$1,594 but on July 26 was \$1,635. The price of 20's Double Globe on June 28 was \$1,340 but on July 26 it was \$1,385. As a result of the freezing of the Chinese and Japanese credits on July 26, prices of cotton yarn increased further on July 28 to \$1,665 for 20's Double Horse. But on July 29, it dropped by \$199 to \$1,466 when the Shanghai Customs banned the export of cotton yarn and cotton piece goods as a measure of retaliation against the freezing order of America and Britain. However, the price of 20's Double Horse increased by \$104 to \$1,570 on July 30 when the Shanghai Customs revised the list of goods banned from export and permitted once again the export of cotton yarn. During these few days, it was reported that many cotton yarn establishments failed to re-open because of heavy losses. The following table gives the prices of cotton yarn on June 28 and July 26:

|                                | June 28    | July 26  |
|--------------------------------|------------|----------|
| 10's Boy Scout .. .. .         | \$1,020.00 | —        |
| 10's Double Globe .. .. .      | —          | \$980.00 |
| 10's Teh Li .. .. .            | —          | 950.00   |
| 10's Ka Ho .. .. .             | —          | 935.00   |
| 20's Double Globe .. .. .      | 1,340.00   | 1,385.00 |
| 20's Heavenly Girl .. .. .     | 1,380.00   | 1,430.00 |
| 20's Double Horse .. .. .      | 1,594.00   | 1,635.00 |
| 32's Flying Tiger .. .. .      | 2,035.00   | 2,280.00 |
| 42's Cat and Butterfly .. .. . | —          | 3,170.00 |

(4) *The Cotton Cloth Market*: The market was not as active as before and total turnover for the month was 12,815 bales as against 14,885 bales for June. Of the total, the local speculators bought 5,050 bales, the Chekiang merchants bought 515 bales, the Kwangtung-Hongkong merchants 3,750 bales, the South Sea merchants 2,450 bales, the Yunnan merchants 450 bales and the North China merchants 600 bales. It is important to note that in the latter part of July, the Japanese reports stated that Japanese mills would not export cotton piece goods and cotton yarn to South Sea islands. The following table gives the amount purchased by different merchants in the month:

|                               | First week | Second week | Third week | Fourth week | Total  |
|-------------------------------|------------|-------------|------------|-------------|--------|
| Local speculators .. .. .     | 700        | 1,400       | 1,150      | 1,800       | 5,050  |
| Chekiang merchants .. .. .    | 100        | 200         | 85         | 130         | 515    |
| Kwangtung-Hongkong .. .. .    | 450        | 1,100       | 1,100      | 1,100       | 3,750  |
| South Seas merchants .. .. .  | 500        | 700         | 400        | 850         | 2,450  |
| Yunnan merchants .. .. .      | 200        | —           | —          | 250         | 450    |
| North China merchants .. .. . | —          | 100         | 200        | 300         | 600    |
| Total .. .. .                 | 1,950      | 3,500       | 2,935      | 4,430       | 12,815 |

Prices of cotton cloth increased much because of the freezing of Chinese and Japanese credits, the increase of the prices of raw cotton and the increase of the prices of cotton yarn. The following table compares the prices of cotton cloth for June 28 and July 26:

|                                | June 28 | July 26 |
|--------------------------------|---------|---------|
| 16 lb. Butterfly .. .. .       | \$51.50 | \$54.00 |
| 16 lb. Double Elephant .. .. . | 51.50   | 53.50   |
| 16 lb. Fei Hung .. .. .        | 48.50   | 50.50   |
| 16 lb. Globe .. .. .           | 48.50   | 51.00   |
| 12 lb. Ta Pung .. .. .         | 44.50   | 47.50   |
| 12 lb. Fu Kwei .. .. .         | 44.50   | 46.25   |
| 12 lb. Dragon Head .. .. .     | 48.25   | 50.00   |
| 12 lb. Ball .. .. .            | 47.35   | —       |
| 12 lb. Flying Fish .. .. .     | 47.55   | —       |
| 12 lb. Double Fish .. .. .     | —       | 49.50   |
| 12 lb. Wu Fu .. .. .           | 46.50   | 48.75   |

### Cost of Living Increases Again

After a decline in June to 757.96, the cost of living index of Chinese workers rose again in July to 800.32, an increase of 42.36 points or 5.59 per cent. The purchasing power of the dollar showed a fall of over half a cent from 13.19 in June to 12.50 cents in July. Increases in group indices ranged from 3.30 per cent for miscellaneous items to 6.24 per cent for food, according to the Industrial and Social Division, S.M.C.

The following compares the indices in July with those in June:

| Groups                | Indices June | Indices July | No. of points increased | Percentage rise |
|-----------------------|--------------|--------------|-------------------------|-----------------|
| Food .. .. .          | 818.33       | 869.43       | 51.10                   | 6.24            |
| Housing .. .. .       | 641.42       | 668.18       | 26.76                   | 4.17            |
| Clothing .. .. .      | 556.64       | 579.10       | 22.46                   | 4.22            |
| Miscellaneous .. .. . | 694.68       | 717.60       | 22.98                   | 3.30            |

Owing to heavy increases in cost at sources of supply, combined with increased rates of freight, price of S.M.C. rice advanced from \$110 to \$116 per shih as from July 8. Developments in the Far Eastern situation and the fall in exchange rates since July 9 gave rise to increases, not only to imported but also to native rice. As a result of over supply of stock and forthcoming shipments, the prices later followed a downward trend, S.M.C. rice was offered at prices below the official limit of \$116.

Following the announcement of the freezing of Sino-Japanese credits in the United States on July 26, prices of rice as well as flour, oils, beans, sugar, coal, kerosene, cigarettes, soap, matches, etc., underwent another rise. Of the 52 commodities in the Revised Index, seven remained even; 35 registered rises of from 0.23 to 72.48 per cent; and 10, falls ranging from 0.24 to 20.41 per cent.

### Rents Rise

The second semi-annual investigation of rent for 1941 showed that in 52.46 per cent of the locations checked, rentals have increased since January last. The increase for rooms of one-storey house averaged 5.05 per cent; that of two-storey house without courtyard, eight per cent; and of two-storey house with courtyard, 12.02 per cent.

### Workers' Earnings

The following figures show what a worker's family of 4.62 persons should receive from the earnings of a principal wage earner, from those of other members of the family and other sources. By earnings is meant wages together with allowances of all kinds. The figures are based on what study shows to be the composition of family income, and on the cost of living ruling in July.

Figures are given to show the costs of two standards of living. Standard A shows what the earnings should be on the Revised Standard of Living (replacing the 1936 standard) and Standard B shows what earnings should be on a minimum subsistence standard.

|                                              | Standard A | Standard B |
|----------------------------------------------|------------|------------|
| Earnings of principal wage earner (53.3%) .. | \$101.788  | \$89.458   |
| Earnings of other family members (34.0%) ..  | 64.930     | 57.065     |
| Other family income (12.7%) .. .. .          | 24.254     | 21.316     |
| Total family income (100.0%) .. .. .         | 190.972    | 167.839    |

### Apatite Production Planned in Korea

Domestic production for Japan of apatite, base material for fertilizer, on a fairly large scale will be attempted soon, reports the *Miyako*.

Development along this line is important at the present because of the severe shortage of fertilizer, a shortage which, according to press reports, will necessitate a cut of 20 per cent in the amount of fertilizer to be supplied to farmers. Leading reason for the low supply has been the large decline in imports in order to conserve foreign exchange.

With the authorities determined not to raise imports, the only way out of the situation is domestic production. But apatite mines have hitherto not been found in large quantities in the Japanese Empire.

Only recently however, says the *Miyako*, a large deposit of apatite, estimated at 100,000,000 tons, has been found at Tansen at the northeastern tip of the Korean peninsula and the mines at Gyooku on the island of Kaji, near the mouth of the Yalu River, on the border between Korea and Manchoukuo.

As a result, a number of Japanese concerns, the Japan Phosphate Mining Company, the Nissan Chemical Company, the Oriental Development Company, the Japan Mining Company and the Japan Rasa Company have decided on the formation of a Y.346,000 association to develop the Manchoukuo apatite mines.

This association, however, the *Miyako* believes is but the first step in the exploitation of the mines. It understands, a company will be established in order to carry out development on a large scale.



# West China—Birth of A New Empire

## Crops—Commodities—Industries—Mining—Communications

### Winter Crops for 1941

**A**LTHOUGH the acreage of winter crops of 1941 in West China increased slightly when compared with 1940, the estimate of agricultural production is actually less than 1940. In acreage there is an average increase of four per cent over that of 1940 as reported from the fifteen provinces, including Ninghsia, Chinghai, Kansu, Shensi, Honan, Hupeh, Szechuen, Yunnan, Kweichow, Hunan, Kiangsi, Chekiang, Fukien, Kwangtung and Kwangsi.

Reports show that wheat acreage totals 128,000,000 *mow* (21,300,000 acres) which marks an increase of 9,200,000 *mow* or eight per cent over that of 1940; barley 51,000,000 *mow* (8,500,000 acres) an increase of 1,700,000 *mow* (300,000 acres) or three per cent; peas 34,000,000 *mow* (5,700,000 acres) an increase of 600,000 *mow* (100,000 acres) or two per cent; beans 31,000,000 *mow* (5,000,000 acres) an increase of 1,700,000 *mow* (300,000 acres) or six per cent; rape 56,000,000 *mow* (9,300,000 acres) an increase of 1,400,000 *mow* (230,000 acres) or three per cent.

The acreage increase in winter crops of 1941 has a few exceptions. In Szechuen, for instance, the acreage of rape decreased by 18 per cent due to lower prices of rapeseed oil last year. The acreage of peas in Yunnan, Kweichow and Hunan was reduced by four per cent because of a drop in the market price of peas and the prevalence of insect pests. Acreage for beans in Chekiang and rape in Kwangtung also fell off by one or two per cent as more wheat and barley were grown.

Despite the general acreage increase, advance estimates made by the Bureau of National Agricultural Research in Chungking shows a downward trend in the size of all 1941 winter crops. This was due to a widespread drought in the spring this year. Wheat harvest in the fifteen provinces is estimated at 195,000,000 piculs (at 110 pounds), a decrease of 6,000,000 piculs or three per cent against the 1940 production; barley at 78,500,000 piculs, a decrease of 7,400,000 piculs or nine per cent; peas at 43,000,000 piculs, approximately the same as last year; beans at 48,000,000 piculs, an increase of 240,000 piculs or one per cent; rape at 46,400,000 piculs, a decrease of 2,100,000 piculs or four per cent. While the 1941 wheat crop is the lowest during the four years of war, it is still by 26,000,000 piculs larger than the prewar seven-year average. Likewise, the expected yield of rape shows an increase of 10,000,000 piculs over the prewar seven-year average.

### Commodities and Costs

Despite the spectacular increase in the price level in most big cities in the interior, the price of commodities in thousands of small towns and rural communities throughout West China where the majority of the nation's population live shows only minor gains during the last four years of war. The price of certain daily necessities in Chungking, where the general price index is at present the highest in the interior, has become quite steady under government control.

The hiking of commodity prices in such cities as Chungking, Chengtu and Kunming is mainly due to the loss of Ichang and the Yunnan-Indo-China Railway as the cheapest means of transportation between coastal and interior China, according to the nation's economists. The limited supply of industrial goods in the rear was also cited as a strong reason. Then the concentration of population in and around the leading cities, the practice of profiteering and hoarding on the part of the merchants and a 12 per cent drop in rice production in Szechuen last year from the 1939

peak were also responsible for the high price level in those places. To these causes must be added one bearing on the increased amount of bank-notes in circulation during the war, thereby partly resulting in the depreciation of the purchasing value of legal tender, according to the same authorities.

The people in these cities who are adversely affected by the soaring price level constitute only a small fraction of China's population. Considering that these cities and their suburbs are inhabited by at most 10,000,000 people, they still form a small percentage of the total population of West China. The majority of the people in the country are still enjoying a low price level of local daily necessities.

Rice in most parts of the interior where the population is well scattered is low, according to well-informed business circles. The rice in Changsha is being stabilized by the government at \$15 a picul of 100 catties. On March 15, 1941, the Kweichow district food control committee was ordered by the Chekiang provincial government to approve a petition by the rice merchants to raise the price to \$25 per picul for ordinary rice and \$32 a picul for glutinous rice. The Hupeh provincial government on April 1, 1941, decided on a list of prices of daily commodities for the province. According to the prevailing market prices at that time, rice was sold at \$40 a picul, eggs at seven cents each, vegetables at five cents a catty, pork at \$1.10 a catty and chicken at \$1.20 a catty. The wage of a carpenter or stonemason was fixed at \$2 a day while the price for a uniform to order was \$5 without lining and \$6 with lining.

Although certain commodity prices seem very high in the interior cities, in a number of cases their average is still considerably lower than that in Shanghai where the prices increased many times. Take rice for example, on January 27, 1941, rice was sold at \$141 a picul in Chungking, \$145 in Chengtu, \$65 in Kweichow, \$72 in Sian, \$39.30 in Kweichow, \$110 in Sining, \$36 in Hengyang, \$80 in Loyang, \$62.70 in Kanchow (Kiangsi), \$64 in Foochow and \$34.70 in Shaokwan. On the same day, rice was sold at \$104 a picul in Shanghai, which was \$26.90 a picul higher than the average \$77.10 a picul in the eleven cities of the interior.

Government efforts in adjusting the price level in Chungking, Chengtu and other places have met gratifying success. The rice price in Chungking has been stabilized at between \$140 and \$160 ever since the creation of the National Food Control Bureau last summer although it has hit the \$200 mark in a few isolated occasions. The bureau and other related organizations have been instrumental in providing large quantities of rice at \$62 a picul to government employees and their families and the poor people in and around Chungking. The same thing happens to salt whose price has been stabilized at \$1.00 a catty through government control.

The Fuel Control Bureau of the Ministry of Economic Affairs is supplying cheaper fuel to the Chungking market. Whereas the market price for 100 catties of charcoal is \$23, the bureau sells for only \$17.30. The supply of cheaper daily necessities is handled by the National Supplying-Marketing Bureau which makes big purchases from coastal provinces for the Chungking public. The government has appropriated \$20,000,000 to the bureau for benefiting the people in Chungking and its environs with cheaper goods. A State Monopoly Planning Committee has been organized recently by the Ministry of Finance and monopolies of daily necessities will be enforced four months later.

For the past few years, the National Agricultural Research Bureau of the Ministry of Agriculture and Forestry has made intensive surveys of farm production and rural conditions in different parts of China. According to its latest statistical returns from fifteen out of 86 places covering fourteen provinces in interior China, the purchasing power of farmers, based upon their income and expenditures over a period of eight years, show only a mild decrease in most rural communities in the interior since the war began. The purchasing power of the farmers in Kweichow, Hunan, Kiangsi and Fukien provinces represented a general increase between 1933 and 1937, according to the statistics. Others showed both increases and decreases during that period.

With 1937 as the basic year, the farmers' purchasing power in Yunnan from 1938 on showed some increase although in other



provinces was marked by a general decrease. In 1940, only farmers in Yunnan and Kweichow enjoyed higher purchasing power over previous years. The purchasing power of farmers in Ninghsia, Chinghai, Kansu, Hupeh, Hunan and Kwangtung was lower in 1940, while that in Shensi, Szechuen and Kiangsi was steady. The purchasing ability of Sikang and Fukien farmers was marked by both increases and decreases. In most places the farmers are not as adversely affected as people in the larger cities.

## Industrial Production

A general increase in the production of daily necessities in West China in the past few years is reported by the Ministry of Economic Affairs of Chungking. Notable are soap, matches, socks, coal, flour and yarn, the increases in output ranging from 45 to 300 per cent between 1938 and the end of 1940. The production of coal, for instance, rose by 1,500,000 tons; of machine-made yarn from 30,240 to 54,100 bales, of soap from 99,000 to 309,000 boxes, of matches from 7,000 to 11,700 cases (of 7,200 boxes) of cotton socks from 20,000 to 57,000 dozens, of flour from 1,710,000 to 3,400,000 bags. Following the past four years of war, West China has created now eleven industrial centers. Altogether 1,378 new factories are turning out an increasing amount of industrial products to meet military as well as civilian needs. Among the factories are 361 chemical works, 313 machine works, 294 textile mills, 93 metallurgical works, 48 electrical works, and 269 other plants.

## Mining and Minerals

China produces 60 to 70 per cent of the world's tungsten, with Kiangsi, Hunan, Yunnan, Kwangtung and Kwangsi as main centers. Her annual output was estimated at 7,050 tons in 1936. A big increase was registered after the outbreak of the Sino-Japanese hostilities; the 1937 production rose to 16,518 tons. In 1939 China exported 10,690 tons valued at \$44,674,912. Exports in the first seven months of 1940 totalled 3,080 tons worth \$12,731,765. The U.S.\$25,000,000 loan granted to China by the American Export-Import Bank to meet Chinese foreign exchange needs is being liquidated by the sale of tungsten to the United States. America needs more tungsten than she can produce and depends mainly on China for making up the deficit. About 70 per cent of her 1937 imports of 4,700 tons came from China. With an accelerated production of war materials for Britain and other countries, her demand for tungsten has increased considerably.

Kiangsi is one of China's chief tungsten reservoirs. Deposits in southern Kiangsi total 4,000,000 tons. The annual production of the province is estimated at 5,000 tons. Of this, 2,000 tons are turned out by a plant set up first at Kian and later removed for military reasons. It was established by the Tungsten Mining Administration, founded in 1937 by the National Resources Commission. The production of other provinces is 4,000 tons from Kwangtung, 2,500 tons from Kwangsi, 1,200 tons from Hunan and 1,000 tons from Yunnan.

Of antimony, China also produces 70 per cent of the world's output. Of her 20,000-ton annual output, 83 per cent come from Hunan province. The largest antimony mines are located at Hsi-kuangshan with a monthly production of 650 to 850 tons. Two other districts of the province, Senghua and Yiyang, have deposits estimated at 2,500,000 tons. China's output of mercury, an essential constituent of high explosives, has been insignificant. But since 1937, stimulated by the demand from the West, particularly the United States, China has turned to the exploitation of her rich mercury deposits in the South-west. The agency of this development is the Kweichow Mining Administration, capitalized at \$600,000 and jointly controlled by the National Resources Commission and the product of Sengchihhsien in Kweichow. It has made considerable progress towards raising the rate of mercury production about 500 tons annually. The mines are located in the district of Sengchihhsien in Kweichow.

Efforts have been redoubled to locate new reserves of tungsten, antimony and mercury. Findings so far available show possibilities for antimony exploitation in the districts along the southern part of the Yunnan-Burma Highway and in a region south-west of Kweiyang in Kweichow Province. New mercury deposits have been located in the Fenghuang district in Hunan Province.

During the first four months of 1941, interior China exported tungsten, antimony and tin to the total value of about U.S.\$7,500,000 to U.S.\$7,900,000 to the United States. Tungsten exports have risen this year by 150 per cent when compared with the corresponding period of 1940. In the four months, a total of 3,192 tons of tungsten had been exported by way of the Burma Road and other outlets to the sea in the south-west, which is already 410 tons more than the total exports of tungsten in 1940. The entire lot was purchased by the American Metals Reserve Corporation. The following table gives the amount of tungsten exported in the past few years:—

|      |    |    |    |    |    | Metric Tons<br>(2204.61 lbs.) | Value in U.S.\$ (converted<br>from legal tender<br>official rate in<br>Interior China) |
|------|----|----|----|----|----|-------------------------------|----------------------------------------------------------------------------------------|
| 1937 | .. | .. | .. | .. | .. | 16,517                        | 11,800,000                                                                             |
| 1938 | .. | .. | .. | .. | .. | 12,357                        | 14,960,000                                                                             |
| 1939 | .. | .. | .. | .. | .. | 10,689                        | 13,445,000                                                                             |
| 1940 | .. | .. | .. | .. | .. | 2,873                         | 1,300,000                                                                              |

## River Improvements

With experience gained in the construction of shiplocks in the Hwai River and Grand Canal in northern Kiangsu and Anhwei, the Hwai River Commission of the Ministry of Economic Affairs is now improving the Chi and Wu rivers in Szechuen and Kweichow. Increased transportation capacity of the two waterways means more coal and iron ores for Szechuen iron and steel industries, and cheaper salt, foodstuffs, tung oil, and other products for West China.

The Chi River, which flows from Tungtze in northern Kweichow through Chikiang in southern Szechuen to meet the Yangtze at Kiangtsing west of Chungking, is being canalized by the construction of overflow dams, shiplocks, and dikes. The 135-kilometer channel in Chikiang county was navigable for 3-ton junks in three separate stages during high water months. However, a drop of 115 meters of the river within 135 kilometers, especially the 7.5 meter drop in a 300-meter stretch at the Covered Cliff Gorge and the 5.9 meter drop during 1,000 meters at the Goat Hoof Gorge, made navigation on the Chi River very difficult. It usually took one month for a trip upstreams, and goods had to be unloaded and change boats at the two gorges.

When the Hwai River Commission moved from northern Kiangsu to Szechuen at the beginning of 1938, the government ordered the commission to improve the Chi River. Accordingly, survey parties were sent out in the spring of 1938 to study channels, flows, navigation conditions, and rock formations along the 200 navigable kilometers of the Chi River and its tributaries. In October, 1938, a special office was established to direct the construction of dams, docks and dikes. So far, five overflow dams and shiplocks have been completed. Two are under construction, and 18 more will be built between 1941 and 1945.

Three of the five completed locks are situated on the Pu River, a tributary of the Chi River. They canalize a 16-kilometer channel, providing an easy outlet for coal, iron ore, lime and aluminum ore. The first of the trio is known as the Great Wisdom Dam with a 45-meter wide overflow dam and a lock 66 meters long, nine meters wide, and eight meters deep. It took 105,385 worker-days to complete it in September, 1939, at cost of \$249,491.

The second is named the Great Mercy Dam with a 58-meter wide overflow dam and a lock of the same size as that of the Great Wisdom Dam. It required 139,800-worker-days, cost \$319,914, and was completed in October, 1939. The third, the Great Courage Dam, has a 36-meter wide overflow dam and a lock the same size as the two other dams. It took 102,148 worker days to complete it in December, 1939, at a cost of \$271,542. Operating in daytime only, each lock has a daily capacity of 900 tons. The 1940 transportation on the Pu River came up to 60,000 tons.

On Chi River itself, two dams were completed in April, 1940. The first, Great Faith Dam, has a double lock and raises the water



level to 14 meters. It has an overflow dam 62.9 meters wide, and two locks each 66 meters long. It required 262,391 worker-days and cost \$908,726. The second, known as Great Solemnity Dam, has a 75.8 meter wide overflow dam and a shiplock 66 meters long, 7.2 meters wide, and eight meters deep. Construction took 194,095 worker-days and cost \$692,046. Junks with a load of five tons are now plying on this river. The capacity was estimated in 1940 at 120,000 tons. Besides, 29 shallow sections are being dredged, dynamited, or improved by the construction of dikes at a cost of \$200,000. The total expenses incurred in the first stage of Chi River improvements exceeded \$2,600,000. However, a trip upstream, which formerly required one month, now takes only 15 days. The savings in charges for unloading and reloading at the two gorges alone amounts to \$1,800,000 a year, calculated at an annual capacity of 60,000 tons and \$30 per ton.

The administration charges \$2 per five square meters of deck space for loaded junks passing through the locks. Empty junks can pass free of charge. A discount is given to junks transporting government-owned goods. After paying the dues at one of the locks, a junk can pass the remaining locks on the same trip within a time limit without paying anything else. The boatmen are enthusiastic about these dams and locks, because they save time, money and energy. The ultimate objective of canalizing the Chi River is to maintain at least two meters of water in the channel so that junks with a load of 30 tons can navigate all year round. For this purpose, 20 additional overflow dams and locks are required in the 135-kilometer channel. Six sites were chosen, and work started in July, 1940. Owing to a shortage of materials and workmen construction on four was suspended and the work concentrated on two dams and locks to bring them to early completion. The remaining 18 will be completed in two stages between 1941 and 1945. Then finished, at least \$50 per ton in transportation charges will be saved, which on 120,000 tons a year will mean \$6,000,000 per year. With the exception of iron and steel parts and cement, the materials used in the construction of these dams and locks were native products. The commission has completed in early 1941 a small plant for manufacturing Pozzolanic cement from native-produced clay and limestone to replace Portland cement of which West China does not produce enough for her needs. Reports of the commission, based on present experience, record the good performance of the home-made Pozzolanic cement.

Besides the canalization of the Chi River, the Hwai River Commission is also responsible for improving the Wu River. Between November, 1938, and May, 1939, 195 kilometers of the lower section of the river were surveyed. Between January, 1939, and June, 1940, the commission dynamited rocks at 41 points, cleared 60,840 cubic meters of rocks above water and 9,584 cubic meters below water. It also excavated 20,213 cubic meters of rocks to make tow-paths, one meter wide and three meters high, at 43 points. By May, 1941, the lower section of the Wu River was so improved that a 100-ton steamer of the Ming Sung Industrial Company made a successful trip from Fowling to Kiangkow, 100 kilometers upstream. Junks plying between Kungtang and Fowling, a distance of 189 kilometers, are facing less danger and spend less time and money in carrying goods between Kweichow and Szechuen. The improvement of the Wu River has a special significance for the transportation of Szechuen salt to Kweichow and Hunan, and of Hunan rice to Chungking and eastern Szechuen.

## Thailand and Japan

(Continued from page 264)

the Chinese. One way of doing this has been the establishment of government rice-mills, thus abolishing the Chinese middleman, the burden of whom is lifted from the shoulders of the peasants. Income-taxes have been established, but, inasmuch as incomes below 2,000 ticals a year are exempt, this hardly affects the agriculturalists. It does, however, very much affect the Chinese and other foreign traders, all of whom are very wroth at the end of their economic idyll in little Siam and active in disseminating anti-Thai propaganda and in misrepresenting the situation as to the Japanese.

## The Chinese Factor

The Chinese are most indignant and nothing they could do in the line of anti-Thai propaganda during the past few years has

been overlooked. Furthermore, the new Thai regime, as one of its first acts, decreed that the huge amounts of money the Chinese were sending out of the country must, for the sake of Thailand's own economic stability, be considerably decreased. Chinese propaganda has tried to convince the world that this decree was Japanese-inspired for the purpose of preventing Chinese aid from Thailand to the invaded homeland. This is not the truth nor anything like the truth. The decree came several years before the commencement of the Sino-Japanese conflict and had nothing to do with it. The Chinese in Thailand have not, however, been prevented by the order from sending, in one way or another, more than \$10,000,000, Chinese currency, to China during the past four years. They are still making money in Thailand and still, as you may easily note by looking about Bangkok whose population is more than half Chinese, are very content there. Yet there is nothing bad enough for them to say about the present Thai government and no end to their insistence that it is a pawn of the Japanese.

It may turn out to be, no doubt of that; but if it does, the entire blame cannot fairly be placed upon the Thais. I am in a position to state that when, at the collapse of France the Thais for the first time saw an opportunity to get back some of the land that had been taken from them and, most important of all, to recover their navigation rights on the upper Menam River, they approached the governments of both America and England in respect of their claims. They asked how those claims would be regarded and what would be the attitude of the two Powers toward a possible attempt to implement them (In this connection it should be remembered that the Thais made definite claims upon France as to a rectification of the frontier in 1936, not waiting, as they are generally accused of having done, until France was a conquered country and not in a position to resist).

## Small Comfort from Democracies

The Thais were informed by both governments that, the position in the Far East being so delicate, America and Britain strongly advised an adherence to the *status quo*, at least for the time being. "Why was this?" Deputy Foreign Minister Nai Direck Tainam, who is government spokesman to foreign diplomatic representatives and correspondents, asked me, as he has asked every other British and American newspaper man. "Knowing our history, has your government, then, no sympathy for our territorial aspirations?" I answered, as I had to answer, that under present conditions it was unavoidable that expediency largely determine the trend of international relations.

You see the position, then. Japan comes along and says, "Now is your time, Thailand! At long last comes your chance to get back your lost regions. We, holding the dominant position in Indo-China now that the home country has fallen can easily force a return of your lands under the guise of mediation. You formally accept our proposal to mediate, and the other party will have no choice. You better go ahead and do a little fighting so as to impress the world with the importance of the mediating rôle, then we will step in, promising to mediate in your favor to such a point as may at present be advisable. Reward? Oh, no, we ask nothing whatever. We are simply anxious to increase our prestige in south-east Asia, in order to bring nearer the New Order and Sphere of Co-Prosperity in the Far East!"

Do you ask whether the Thais are really so naive as to swallow that? In a way they are. That is to say, they are no match at all for the Japanese in the game of intrigue and diplomacy. So the fairest view of the Thai position is, as it seems to me, that it has been badly tricked but is yet deserving of more sympathy than blame. I do not know what the Japanese will demand. That is, indeed, one of the questions of the hour in the Far East and it may be answered before you read this. It may be answered in a way that will be to the disadvantage of the rest of us and put Thailand altogether outside the pale of countries friendly to the democracies. If Japan demands military bases which it does not appear to have done so far, despite the rumors—if it demands these, as is not unlikely, the Thai Ministers assert vehemently that they will refuse the demands, even to the point of fighting. If they do not, or if they do and are overborne—as they must be—then an equally certain endeavor by somebody to aid them may be the final spark to the Far Eastern powder barrel.



# State of Affairs in North China

## Industries—Communications—Electrical Development—Trade—Finance

### Commodities and Costs

In the early part of this year, North China witnessed a general business depression with large stocks of Japan-made goods finding no markets while prices of Chinese produce increased day by day. According to the *Oriental Economist*, the well-known Tokyo monthly, the current depression in North China is a natural phenomenon accompanying commercial transactions which have hitherto been conducted without any planning or control. Prices of the commodities purchased by merchants in large quantities will be affected directly or otherwise by a reduction in the reserve rate, a system enforced on December last to adjust trade between North China and foreign countries. Further, additional control of foreign trade which is sure to be enforced in the near future, will certainly subject the North China market, hitherto free, to official regulation.

While the prices of some goods supplied by Japan remain irregular, those of the staple products of North China and goods manufactured from them have been tending to appreciate. Especially stiff are the prices of raw cotton and peanuts. The fixed price of raw cotton has been raised from Y145 to Y203 per picul while peanut oil, one of the staple exports from North China has risen from Y50 to Y65. Wheat and other cereals have also steadily risen. The following tables give the index of commodity prices as well as the index number of the cost of living of workers in North China:

NORTH CHINA COMMODITY PRICE INDEX

(1936-100)

|                           | May, 1941 | April, 1941 | May, 1940 |
|---------------------------|-----------|-------------|-----------|
| General Index .. ..       | 428.79    | 422.90      | 435.95    |
| Food .. ..                | 382.33    | 379.02      | 384.79    |
| Cotton piece-goods ..     | 481.58    | 493.22      | 557.10    |
| Metals .. ..              | 730.88    | 712.05      | 751.50    |
| Construction materials .. | 368.97    | 363.66      | 357.17    |
| Fuel .. ..                | 297.95    | 300.03      | 303.82    |
| Miscellaneous .. ..       | 396.07    | 410.83      | 412.35    |

COST OF LIVING INDEX OF TIENTSIN WORKERS

(1936-100)

|                      | May, 1941 | April, 1941 | May, 1940 |
|----------------------|-----------|-------------|-----------|
| General index .. ..  | 386.71    | 386.33      | 408.06    |
| Food .. ..           | 397.58    | 395.66      | 472.52    |
| Clothing .. ..       | 503.39    | 519.45      | 505.53    |
| Fuel and Water .. .. | 431.19    | 432.57      | 332.61    |
| House rent .. ..     | 262.55    | 262.55      | 201.96    |

Despite this general situation it is amazing to see the rapid development of economic construction of North China during the past four years. It is to be pointed out in the first place that the volume of the Federal Reserve Bank-notes in circulation at present assumes the sizable proportions of 680 million yuan. The soundness of the Federal Reserve Bank-note is demonstrated by the fact that its value is approximately 40 per cent higher than the old *fapi*.

Along with the increased circulation of the note issue, the position of the Federal Reserve Bank has been rapidly elevated and its influences have been expanded broadly. The bank has to-day under its domain the Tatu Bank of Tsingtao, Lohsing Bank of Tsinan, Honan Industrial Bank of Haifeng, Shansi Bank of Taiyuan, Bank of Hopei Province and Bank of East Hopei, while the Bank of China of the southern interests are now practically out of business.

On the other hand, the fiscal position of the North China Political Affairs Commission has been greatly improved. Receipts from the Consolidated tax in the area registered a swift increase in proportion with the progress of the economic construction work.

Receipts from the same tax during last year amounted to 98 million yuan, which doubles that obtained four years ago. In the first four months of 1941, total consolidated tax collected amounted to 10,420,000 yuan, representing an increase of 3,912,000 yuan when compared with the corresponding month of 1940. Of the total of 10,420,000 yuan, 7,495,000 yuan were cigarette tax, 548,000 yuan were match tax, and 388,000 yuan were tobacco tax and 352,000 yuan were cotton and silk tax.

Trade with Japan has been maintained favorably in spite of the wartime control over the supply of goods in Japan. It is expected that the trade between North China and Japan for this year will be far greater than the previous year. Besides the ordinary trade as planned for the current year, North China is to get 60 million yuan worth of goods from Japan under a special arrangement to be used for the settlement of trade balances between North China and Manchuria. Meanwhile the trade under the barter system between North China and Central China is set at about 160 million yuan compared with last year. It may thus be said that a contraction of North China's trade with the non-yen trading countries will be amply offset by gains in its commerce with Japan and Central and South China.

### Industrial Development

The most outstanding achievement is that of industrial development. An annual production at the principal collieries in North China which in 1939 soared above the pre-China Affairs level, recorded a further striking increase last year. North China has now many powerful collieries. In January last year, the Tatung Coal Mining Company was organized with a capital of 40 million yuan and in July, the Chingching Coal Mining Company, with a capital of 30 million yuan. In December last, the Hsingchung Kongsu was dissolved and its business was taken over by six colliery companies, which were organized under a Sino-Japanese joint plan in accordance with laws of North China.

These organizations operate in six different regions. They are: Hsingchung Colliery (capitalized at 3.62 million yuan), Liuchuan Colliery (0.9 million yuan), Tawenkow Colliery (2.5 million yuan), Tzehsien Colliery (2.1 million), Ysiaotso Colliery (2.92 million), and Shansi Colliery (2.46 million). The North China authorities have rendered untiring efforts to increase coal production in conformity with the productivity expansion plan of Japan. As a result, North China was able to fill up its quota in supply of coal to Japan during 1940. It is expected that North China in 1942 will probably double the production of the current year. This prediction is based on the fact that the North China Coal Sales Company organized with a capital of 20 million yuan for the purpose of controlling the distribution of coal on a uniform basis, has recently reached a decision to subsidize the native collieries, in addition to the coal price equalization system which has been operating effectively since the beginning of this year.

The iron industry has also been developed in a remarkable manner. In July, 1939, the Lungyen Iron Mining Company was established with a capital of 20 million yuan, which was invested by the Mengkiang Government and the North China Development Company on an equal basis. This company is working on the famous Lungyen iron mines. Ores produced at the mine are shipped to Japan and the Shihchingshan iron works. During last year the Lungyen Mining Company was able to ship its ore to Japan up to 100 per cent of its fixed quota. The company is expected to increase its coal shipments to Japan this year. The above-mentioned Shichingshan Iron Works was organized when the Hsingchung Kongsu was dissolved in December last, with a capital of 8,645,000 yuan jointly invested by the North China Development Company and the Nippon Iron Manufacturing Company. The Company was immediately followed by the Shansi Iron works, which was established with a capital of 5,799,000 yuan offered by the North China Development Company and the Okura financial concern. The two iron works produce enough iron to



meet the North China requirements and are expected to ship their surplus production to Japan from this year.

An interesting development recently is that a blast furnace has been removed from the Yawata Works of the Nippon Iron Manufacturing Company to the Shichingshan Iron Works. The furnace is expected to be put in operation toward the end of this year. On the other hand, Taiyuan Iron Works will shortly complete the installation of its single root process to produce steel from ores. In addition, the Nakayama Steel Works and the Otani Steel Works are said to be removing their electric furnaces to Peking for the purpose of producing steel and scrap iron, native pig iron and scrap iron available on the spot. In the light of the foregoing it can reasonably be expected that North China will be able not only to attain self-sufficiency in iron and steel but also to ship surplus supplies to other parts of the Far East.

The North China authorities have made untiring efforts to increase the production of salt in order to meet Japan's salt requirements, which are increasing at an accelerated pace due to the stoppage of supplies from third countries. Thanks to these efforts, North China could fill up its quota in supplying salt to Japan during 1940. At present the salt industry at Changlu is under the management of the North China Salt Company, Ltd., a subsidiary to the North China Development Company. This company was established in August, 1939, with a capital of 25 million yuan under a Sino-Japanese joint plan. The 1941 operation expenditure of the company is estimated at 13 million yuan. The Shantung Salt Company, another important salt making enterprise in North China whose annual production of salt was about 300,000 tons before the occurrence of the China Affairs became a subsidiary to the North China Development Company at the beginning of this year. As these two companies are making constant endeavors to augment the salt output, Japan will be able to get salt from North China to an amount sufficient to feed its chemical industries by 1945.

## Land and Water Transport

The transportation network of North China is being effectively operated by the North China Transportation Company with a capital of 500 million yen jointly invested by the North China Political Affairs Commission, the North China Development Company and the South Manchuria Railway Company. Railways operating under the management of the company extend to 6,000 kilometers at present while the company's motor-car service mileage extends more than 12,000 kilometers. The motor-car transportation service in the Mengkiang district is monopolized by the Mengkiang Railway Company, which is a special company.

For the expansion of river and canal navigation the North China Transportation Company in May of this year adopted a five-year river-canal navigation plan. The company also has acquired the franchise from the North China Political Affairs Commission for the operation of 3,700 kilometer navigation service on eight principal rivers and canals including the Yellow River. As to port and harbor improvement undertakings, it is to be noted that construction work for the port of Tangku is rapidly under way, while the port facilities at Tsingtao are being expanded by the Tsingtao Wharfing Company, which is capitalized at two million yuan. This company also operates in warehousing, wharfing, stevedoring and other business. Side by side with this company, the Tangku Transportation Company, with a capital of six million yuan, is efficiently operating in wharfing, stevedoring and lighterage business in Tangku and vicinity, and is contributing to smooth flow of coal. This latter company is also commissioned to manage the business of the Tangku Shipbuilding Yard.

In this connection, it is interesting and important to point out the withdrawal of British interests. The sum of £250,000, payable in London within two months, is the price for the Taku Tug and Lighter Company's fleet, consisting of 46 vessels, and also a dock, engine works and property at Taku, which the Toa Kaiun Kaisha purchased from the British Company in the early part of July. The lighters exceed 15,000 tons gross and comprise 24 for general cargo, eight for bulk oil, two for vegetable oil, and a waterboat, a salvage hulk and a coolie hulk, with nine tugs completing the fleet.

## Electric Power Expansion

In keeping with the progress of industrial construction, North China is attempting to expand its electric power industry. In addition to the extension of the steam power generation facilities, the authorities of North China have been planning on a concrete basis the development of water power available from the Lwan River, the Yungting River and the Yellow River.

It was made known some time ago that construction work for hydro-electric power generation plants will be started shortly alongside the Lwan River. For the synthetic development of water power resources and uniform control of the transmission business in North China and Mengkiang district, two power companies were organized, the Mengkiang Electric Company and the North China Electric Power Company, the former being set up in May, 1938, with a capital of 10 million yuan, and the latter, in February of last year with a capital of 100 million yuan. Both are under the Sino-Japanese joint plan. Besides these two principal electric power enterprises, there exist several companies at different points, their capital ranging from two to eight million yuan.

Regarding trade, the Federal Reserve Bank on July 23 enforced new exchange regulations governing foreign trade. Effective immediately Tientsin exporters must produce concrete proof that cargoes for import to Tientsin already have been loaded on ships in foreign ports before permission will be granted to export goods of similar value from Tientsin. Heretofore export permits were issued irrespective of whether actual loading had been completed in foreign ports.

## Trade and Finance

The outbreak of hostilities between Germany and Russia, affected much of Germany's trade in North China. Until quite recently, it is estimated that from Fr.\$1,000,000 to Fr.\$1,500,000 of trade was being done every month between North China and Germany. North China's imports from Germany were chiefly machines and chemical products forming two-thirds of the local consumption in the Tientsin area. The interruption of the Siberian route will not cause serious effects in Tientsin as there are ample stocks of German commodities which can last fully two years, according to well-informed business circles.

As to the detailed conditions of trade, the following account of the *Oriental Economist* is of great interest:

The North China trade at six ports, i.e., Tientsin, Tsingtao, Chinwangtao, Chefoo, Lungkow and Weihaiwei, from January to September last year, amounted to \$756,000,000 in imports and \$230,000,000 in exports, or a total of \$986,000,000, according to Maritime Customs trade statistics. Compared with the figures for the corresponding period of the previous year, this was a phenomenal increase of about 80 per cent.

TABLE 1.—NORTH CHINA FOREIGN TRADE  
(In \$1000)

|                 |       | Imports | Exports | Total   |
|-----------------|-------|---------|---------|---------|
| 1936            | .. .. | 140,903 | 191,111 | 332,014 |
| 1937            | .. .. | 145,790 | 215,741 | 361,531 |
| 1938            | .. .. | 319,986 | 254,526 | 574,512 |
| 1939            | .. .. | 574,535 | 200,851 | 775,386 |
| Jan.-Sept. 1939 | .. .. | 428,847 | 160,407 | 589,254 |
| Jan.-Sept. 1940 | .. .. | 756,452 | 229,924 | 986,376 |

The total for the whole of 1940 is estimated to have exceeded \$1,000,000,000. This is more than three times the \$305,000,000 total in 1936 or 1937—the highest record in the pre-China Affair days. However, the increase of trade value owes not a little to the rise of the unit prices of export and import items due to exchange slumps and an abnormal rise of prices.



## Prices Quadrupled

The North China trade as viewed from its quantitative angle, therefore, cannot be said to have been successful. Prices last year were about double those in the previous year and about four times those in 1936, or the year preceding the outbreak of the China Affair.

TABLE 2.—ADJUSTED NORTH CHINA TRADE FIGURES  
(In \$1000)

|                 |    |    | Imports | Exports | Total   |
|-----------------|----|----|---------|---------|---------|
| 1936            | .. | .. | 140,903 | 191,111 | 332,014 |
| 1937            | .. | .. | 124,607 | 184,394 | 309,001 |
| 1938            | .. | .. | 210,517 | 167,451 | 377,968 |
| 1939            | .. | .. | 253,099 | 88,481  | 341,580 |
| Jan.-Sept. 1939 | .. | .. | 206,176 | 77,119  | 283,295 |
| Jan.-Sept. 1940 | .. | .. | 191,507 | 58,208  | 249,715 |

Table 2 shows those figures after the possible effect that may have been given to the trade as a result of this price advance has been deducted. Though numerically they may thus be less correct, actually, however, it probably shows the true condition of the North China trade under the current wartime situation. As may be seen in the table, imports have considerably increased after the outbreak of the China Affair but, on the contrary, exports have been yearly on the decrease.

## Yen Bloc Trade

Following the outbreak of the China Affair, imports of major commodities, such as wheat, rice, metals, machinery, kerosene and timber, have greatly increased. As a result, the North China import trade as a whole has increased. Due to the stimulus given by the phenomenal rise of prices on the spot, imports from the yen bloc countries in particular have made marked increases, covering all kinds of articles. On the other hand, exports conversely have yearly suffered a decline, especially since 1938.

It is to be noted that hitherto North China exports have chiefly been agricultural and live-stock farming products. Undoubtedly, the fundamental causes for the drop in the export of these products have been war disasters, frequent floods and droughts, shrinkage of agricultural production capacity due to difficulties in restoring peace and order, control of purchasing prices, and a change in agricultural policy affected, for instance, to obtain products intended exclusively for domestic consumption.

## Japanese Restrictions

In addition further impetus has been given to this decrease in the North China export trade by the abnormal rise in prices of export goods, the restriction placed on exports of raw cotton, hemp and wool, and the local restriction placed on the outflow of materials, such as furs and apricot-stones as in Mengchiang and other areas. These have been important causes which cannot be overlooked.

Such basic factors governing the North China trade underwent no changes whatever in 1940. Not only was there an increased demand for importation of material but also the reconstruction work after the big flood in 1939, which caused great damages to the entire Hopei area centering around Tientsin, doubled the demand.

## Speculative Imports

Further, the fear of an aggravation of international relations caused active speculative importation from third nations. Although the mounting trend in the importation from the yen bloc countries was somewhat checked by a decrease in important articles such as cotton textiles, sugar and rice, the import trade continued to increase until measures for adjustment of the export trade directed to the yen bloc countries were put into operation last September.

The export trade, on the other hand, continued to decline because of the lingering after-effects of the serious flood and drought damages which were caused in the autumn of 1939 to the crops of "special products" in North China, coupled with the loss of the European markets due to the spread of the European war.

## Cereals Hold Lead

The January-September trade statistics of last year show that rice and wheat-flour occupied the dominant positions in the list of imports, both of which combined comprised 18 per cent of the total

imports. Next in order came metals, sugar, machinery, raw cotton, timber and kerosene oil.

The leading import items in January-September, 1940, actually registered a sharp increase in every item as compared with the corresponding period of the previous year. But those which increased in quantity as well as in the value of the trade were only gunnies, metals and minerals, machinery and tools, marine products, canned provisions and kerosene oil.

## Cotton Shortage

Of the imports, raw cotton had to be imported in considerably large quantities because of a shortage of North China cotton, and yet the cotton spinning mills there had to cut their work by 60 per cent. The countries from which raw cotton were imported were chiefly British India, the United States and Brazil.

As heretofore, metals and minerals were imported in the main from the United States, Japan, Germany, Belgium and Britain. Particularly the fact that imports in this line from the United States increased phenomenally from GU1,143,000 (which was the figure registered for the corresponding period of the previous year) to GU10,173,000 is attributable to the activity of speculative imports made in apprehension of that country's placing restriction on exports to the Far East of iron and steel.

## Textile Machinery

Machines and tools were imported chiefly from Japan, Germany and Great Britain. The amount of imports made from Japan, however, showed a decrease when compared with the figure registered for the previous year. This was due to the fact that imports of spinning and weaving machines, which constituted the main items in this category of imports, decreased notably since the demand in North China previously had been almost fulfilled.

On the other hand, Germany's and Britain's gains, GU2,686,000 and GU1,924,000, respectively, showed about a fivefold increase over the figures recorded for the corresponding period of the previous year.

## Japanese Foodstuffs

Imports of fish, shell-fish and other marine products, animal products and canned provisions mostly came from Japan and the Kwantung Leased Territory, which together established a record of GU13,892,000, or about 90 per cent of the total.

This was a salient feature of the speculative import trade conducted in North China, which was the result of the high-price situation existing on the spot. The figures for both Japan and the Kwantung Leased Territory for the same period of the previous year totalled only GU4,723,000.

As regards rice, including unhulled rice imports from French Indo-China and Thailand comprised 83 per cent of the total of this category. The rest was supplied from Japan Proper and Korea, although those from Japan proper were largely reshipments of foreign rice.

## Wheat Flour Arrivals

In the previous year 90 per cent of the total imports of wheat flour was obtained from Australia and the United States. Last year, however, although imports in this line from Japan, which amounted to GU8,773,000, fell below half the total of this line of imports in value, quantitatively they covered more than 60 per cent of the total, the amount reaching 930,000 quintals. Imports from Australia and the United States fell off markedly to about a quarter of the amount registered for the previous year.

At the beginning of last year, scarcity of foodstuffs and the consequent rise in their market prices caused a temporary unrest among the people in the Peking-Tientsin area over the food problem. But appropriate measures subsequently taken by the authorities against this development are stabilizing the supply and demand situation.

Sugar was supplied in the previous year almost entirely by Japan and Formosa. But last year the quota given to North China was reduced due to the decrease in output in Formosa. The greater part, therefore, was provided by Japan.

## N.E.I. Kerosene

About 70 per cent of the kerosene oil supplied to North China was from the Netherlands East Indies, followed by Japan and the



United States. This remarkable increase of oil imports from the Netherlands East Indies is particularly significant.

Eighty per cent of the timber imported was from Japan, for which that country gained GU8,801,000. Imports from the United States have in recent years considerably decreased. Last year again saw a further decrease, the figures for the United States being only GU1,507,000. Of the miscellaneous goods imported, 80 per cent was from Japan and the Kwantung Leased Territory.

It is noteworthy that the imports of rubber materials with the Netherlands East Indies, the Straits Settlements and the United States as their chief suppliers, increased from the GU897,000 of the previous year to GU1,665,000.

### Japanese Dominate

The principal nations trading with North China are listed in the following table.

TABLE 4.—IMPORTS FROM PRINCIPAL COUNTRIES

(In \$1000)

|                                    | 1936    | Jan.-Sept. |         |
|------------------------------------|---------|------------|---------|
|                                    |         | 1939       | 1940    |
| Japan Proper .. .. .               | 58,152  | 176,498    | 314,895 |
| Korea .. .. .                      | 2,142   | 15,622     | 10,880  |
| Formosa .. .. .                    | 934     | 17,862     | 15,758  |
| Kwantung Leased Territory ..       | 5,082   | 60,494     | 67,921  |
| Great Britain .. .. .              | 13,378  | 8,575      | 15,891  |
| Hongkong .. .. .                   | 603     | 4,317      | 22,649  |
| British India .. .. .              | 1,743   | 11,561     | 31,478  |
| Australia and New Zealand ..       | 882     | 29,505     | 24,673  |
| United States .. .. .              | 13,912  | 37,947     | 85,437  |
| Germany .. .. .                    | 14,316  | 19,626     | 21,416  |
| French Indo-China .. .. .          | 689     | 8,299      | 62,277  |
| Netherlands East Indies ..         | 11,191  | 9,131      | 35,028  |
| Belgium .. .. .                    | 5,204   | 6,801      | 7,906   |
| Total including other countries .. | 140,903 | 428,847    | 756,452 |

Imports from Japan accounted for about 40 per cent of the total. Thus Japan far outstrips the United States which ranks second, the latter's share in the North China import trade amounting to over 10 per cent of the total. Next in order come the Kwantung Leased Territory, French Indo-China, the Netherlands East Indies, British India, Australia and Hongkong. Germany and Great Britain, who in the pre-China Affair days held second and third ranks respectively, fell off to ninth and tenth positions, respectively.

Countries which achieved a notable increase in their trade with North China last year in comparison with the previous year were Japan, the United States, French Indo-China, the Netherlands East Indies, British India and Hongkong. Imports from Japan covered all important articles with the exception of raw cotton and gunnies. Japanese goods which last year particularly made a marked increase were wheat-flour, rice, canned provisions and marine products.

### Imports from U.S.A.

Of the imports from the United States steel and other metals, raw cotton, wheat-flour and kerosene accounted for 80 per cent. These increases may be attributed to the speculative import trade and the rise of the unit prices of imported goods.

The increase in imports from the four other countries is due to the following: French Indo-China supplied increasing amounts of rice; the Netherlands East Indies, increasing amounts of oil and sugar; British India, larger quantities of raw cotton and gunny bags; and Hongkong, greater amounts of gunny bags and sugar.

Imports from Korea, Formosa and Australia last year decreased because of the decline in the imports their respective products, namely, rice, sugar and wheat-flour.

### British Empire Trade

Imports from European countries such as Great Britain, Germany and Belgium showed no particular change in volume as compared with the same period of the previous year, because there occurred no notable falling off in the amount of imports of their chief products such as metals, machinery and dye-stuffs.

The marked decline in their relative positions in the North China import trade is rather the result of the pressure exerted upon their trade by the sharp increase of imports from Australia and French Indo-China such as wheat-flour and rice. The situation is somewhat different in the case of Britain, for while she retreated from the North China import trade, Hongkong, British India and others made an advance. Thus the British Empire as a whole maintains as ever a stable position.

### U.S. Purchases

From the standpoint of nations trading with North China, the changes that took place in the trade are more remarkable in the export field than in the import.

Of North China's total exports, those to the United States comprised 30 per cent, which fact enabled the United States to maintain as always her position as premier purchaser of North China goods. Next in order came Japan, the Kwantung Leased Territory and Great Britain.

The exports to the above four countries, which covered approximately 90 per cent of the total, when compared with figures for the same period of the previous year, made a considerable increase in each case.

The rise in exports to the United States is particularly noteworthy. In making a correct survey, however, the fact must be taken into consideration that there occurred a rise in the unit prices of export goods. The only countries to which exports showed a quantitative increase also were the United States and the Kwantung Leased Territory.

### Europe Market Lost

The chief exports to the United States were pigs bristles, furs, peanuts, egg products and carpets, accounting for 85 per cent of the total exports to that country. It need scarcely be mentioned that the change of destination in shipments of bristles, peanut-oil and egg products, against which the European markets have been shut, made conspicuous the concentration of North China exports on the United States.

Of course among these were included many of those goods which originally had been intended as direct exports to Great Britain but which had to be sent preferably by way of the United States due to a shortage of bottoms and for reason of utilization of the Anglo-American official cross-rate.

Eighty-five per cent of the exports to Japan were made up of coal, salt, raw cotton and wool. Coal, however, led all the rest, its value amounting to \$35,000,000. Ninety per cent of the exports to Great Britain were egg products. Exports to Germany, France and the Netherlands were chiefly eggs products, peanuts, etc., but quantitatively the amounts of these exports were very small.

## Omnibus Transportation in the Philippines

(Continued from page 266)

directors of the Panay Autobus Company and its sister companies; Benjamin C. Gaston, youthful manager of the Visayan Rapid and Negros Transportation Company and its subsidiaries; Dr. Aniceto Belmonte, owner of the Zaragosa Transit; Santiago Sambrano, owner of the Santiago Sambrano Express and the Luisita Transportation Company; Fortunato F. Halili, owner of the Halili Transportation System; and Matias A. Fernando, owner of the Angat-Manila Transportation.

## New Air Route

The Eurasia Aviation Corporation is preparing to inaugurate regular airmail and passenger services between Hongkong and Shiukwan, provisional wartime capital of Kwangtung province, towards the end of August says a report to the *Cheng Yien Pao*. The air services will also link Hongkong with the district of Keih sien, the report adds.



# The Oil Situation in the Middle East\*

By "OILFIELD ENGINEER"

(The Engineer)

WHEN considering the oil situation in the Middle East, especially in Irak, one has to depend very much upon newspaper reports. Comments with these reports inevitably refer loosely to oil, as if crude oil, produced in the various oilfields, were a commodity available for use immediately on the spot. Crude oil must be refined before it can be used, and the refineries in all parts of the Middle East are easily rendered completely useless, either by bombing from the air or by demolition by ground staffs. When this important point is appreciated properly, the situation loses much of its unfavorable aspect, and newspaper comment is shown, almost invariably, to be ill-informed and unduly alarming in character. To make use of the oil resources of the Middle East, even should the Nazis continue their conquering progress to Irak, Iran, Egypt, and Russia, the crude must be refined. With the refineries all destroyed, and the pipe lines irreparably damaged, the Axis Powers would have either to transport refinery equipment from Europe over a long and difficult route, to be erected in the actual oilfields, and thus provide fuel and lubricants for their forces and aircraft on the spot, or they would have to rebuild pipe lines and gain command of the Mediterranean, to transport the crude to European refineries, which may or may not be left standing after R.A.F. bombing attacks.

A glance at the sketch map will show the distances to be traversed for either alternative to be practicable. When it is remembered that the Nazis are hard put to it to repair their own refineries, owing to restricted output of refinery equipment in European countries, and that they lack the necessary huge output of line pipe for new pipe lines, the considerable and complicated equipment for laying pipe lines, and the experience on pipe line work, together with there being no possibility of obtaining the services of expert American pipe liners, any oil man who knows his job has the right to question the Axis strategy which, apparently, will cost great numbers of men and considerable effort to gain control of Middle East oil fields. These fields will produce crude oil, if drilling and producing equipment is available for the purpose, but they will not, owing to lack of refineries, make fuel and lubricants available to the Axis armed forces, either on the spot or in Europe.

Having made these important points clear, we may study the various areas in which crude oil is produced.

*Irak.*—Competent American sources estimate Irak crude production in 1940 to be around 10,000 tons per day. The majority of this production comes from the Kirkuk field, which is one of the largest producing areas in the world. This field is about 65 miles long by an average of about two miles wide, and approximately sixty wells have so far been drilled. Many of these wells are each good for a production of more than 10,000 tons per day, but for various reasons the output is restricted. The Kirkuk crude is around 36 gravity A.P.I.—a fairly good grade of crude, and is produced from formations at 2,100-ft. to 2,200-ft. One of the gratifying

features of the Kirkuk field is that there is a very small pressure differential. Wells when flowing wide open for short periods on test, compared with those shut in, show a pressure of 13-lb. per square inch as against 20-lb. per square inch. Development of the field has been very scientific, and nearly all the present production is piped through the line from Kirkuk to Haifa. This line is bifurcated near the Syrian border, but after the collapse of France no crude went through to Tripolis on the Syrian coast, where a small refinery treated the small stocks of crude held in storage tanks there.

The restriction of pumping crude only to Haifa has caused a drop in total production.†

Before pumping the crude from Kirkuk to the refinery at Haifa, it has to be treated in a stabilization plant, designed to remove the high content of hydrogen sulphide. This stabilization plant—which is not a complete refinery—has a capacity of more than 10,000 tons per day, and the capacity of this plant, until the French defection, restricted the total crude volume pumped through to the Mediterranean.

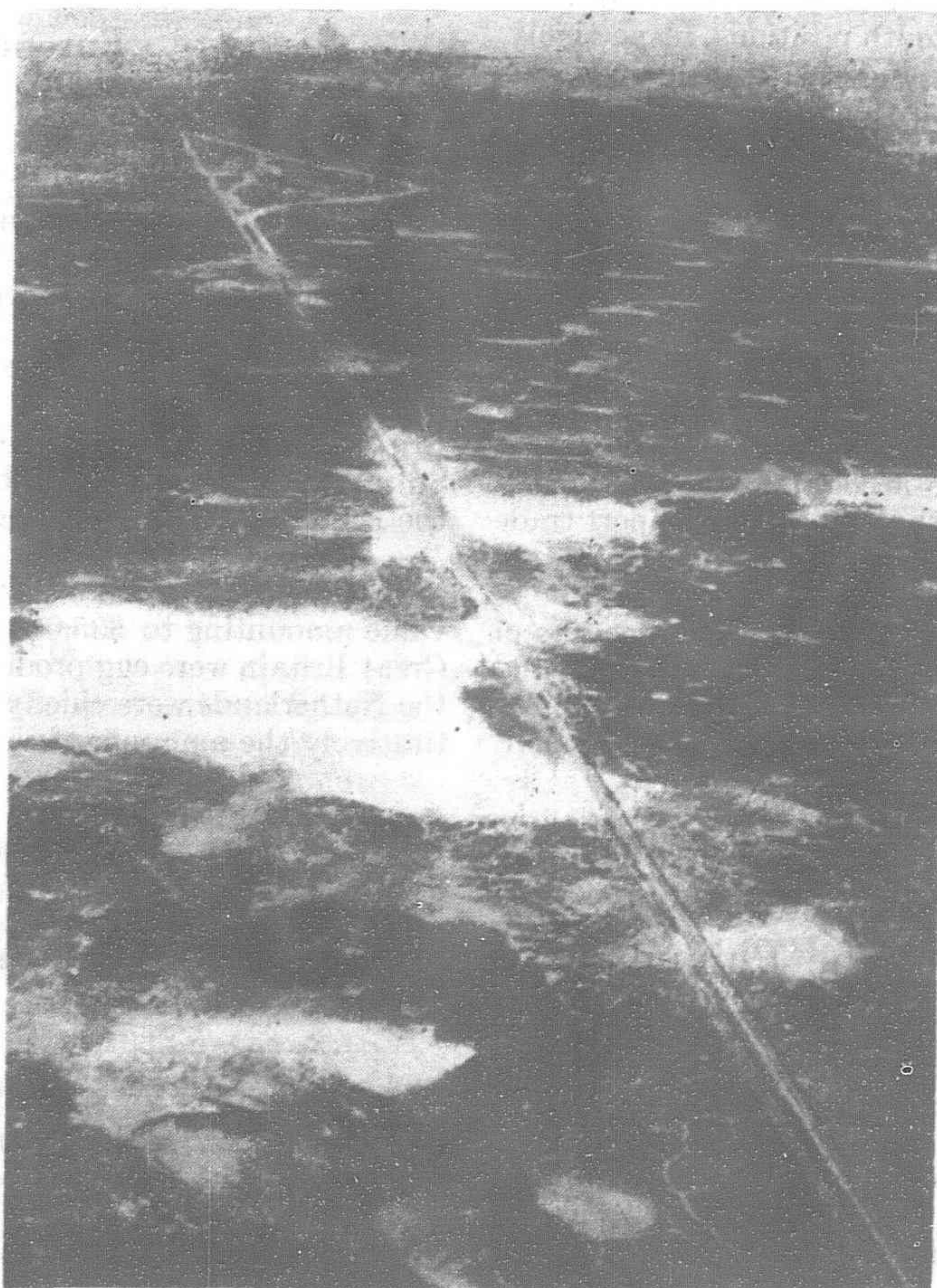
The Haifa plant undoubtedly produces most of the fuel and lubricants required by the Allied forces in the Mediterranean areas of Africa and Palestine. The success of the Nazis in Greece places the Haifa plant in a rather precarious position, however, as it is within range of bombers operating from the Greek air bases.

Should Britain be forced to evacuate Palestine as the result of a Nazi drive through Turkey or *via* the many islands of the Eastern Mediterranean, we may be sure that the Haifa refinery and the long stretches of the pipe line towards Kirkuk will be destroyed by our ground forces. But it must be remembered that the loss by bombing or enforced evacuation of the Haifa plant is not vital, as Egyptian refineries can supply considerable quantities of fuel and lubricants, whilst we have production of the Bahrein refinery, Burmah, Iranian, and even Dutch East Indies plants available, so long as we keep command of the Indian Ocean and of the Red Sea.

The former B.O.D. field at Qaiyarah, 75 miles south of Mosul, on the banks of the Tigris, has a potentially great production, but the crude oil is of poor quality, being less than 20 gravity A.P.I., with a content of more than six per cent of sulphur. The Qaiyarah field is about 23 miles long by an average of 2½ miles wide, and about sixty wells have been drilled there. Production is very restricted, owing to the poor quality of the crude, and to the limited facilities of the Irak pipe line carrying the higher grade Kirkuk crude to Haifa. Production at Qaiyarah is estimated to be less than 13 tons per day, and this oil is used only for local fuel and road oil requirements. The oil is produced from the Asmari limestone, at depths of 700-ft. to 1,500-ft.

\*Events are moving so quickly in the Middle East and so little about the actual position is known with certainty that assumptions made in this article may be changed one way or the other before it appears in print.—ED. THE E.

†It has been reported in the Press that the branch pipe to Haifa has been closed and that oil is being delivered to Tripolis alone.



Aerial view of part of Haifa pipe line



Naft Khaneh, just over the border in Irak from Iran, was formerly in Persia until a new line of demarcation between these two countries was drawn after the last war. Production here is less than 60 tons per day, which includes production from the small field of Chia-Surkh. The oil from these two fields is piped to the refinery at Khanaquin (Aldwan), which has a capacity of about 360 tons per day.

The only other refinery in Irak is that at Baba Gurgur, with a capacity of slightly more than 200 tons per day. This plant treats crude from Kirkuk for local requirements.

This survey of Irak indicates quite clearly that although crude oil production is now restricted, the potential production is great. But the Irak crude could not be transported to European refineries for treatment, until complete command of the Mediterranean was obtained, and the time taken to lay new pipe lines or to repair the damaged line now operating would be so long, owing to the factors already detailed, that the Irak crude would be of no military value to the Axis, even if new drilling and producing plant were transported from Europe for resumption of production.

**Egypt.**—Egypt has not received much limelight from the point of view of oil. This country has, however, considerably increased exploratory activity during the past few years, with encouraging results. Again in 1940, production was increased by 50 per cent, and Hurghada and Ras Gharib are the two main producing fields. The crude has a gravity of 36 A.P.I. at Hurghada and of 38 A.P.I. at Ras Gharib. There is a large and a small refinery at Suez. These plants play an important part in the supply of refined products to our Near East forces. Ras Gharib is a field capable of greater production, and refinery capacity in Egypt will undoubtedly be increased in the future.

**Iran.**—The Anglo-Iranian Oil Company, Ltd., in which the Government has a considerable interest, operates one of the richest concessions known in the oil world.

The 1940 production totalled about 11,000,000 tons, as against a slightly higher figure for 1939, but this volume does not represent more than a fraction of potential output. The southern fields of Masjid-i-Sulaiman—first exploited in 1908—and of Haft Kel, 50 miles south of Masjid-i-Sulaiman, are both connected by pipe line to the huge refinery at Abadan, on the Persian Gulf. Abadan has the largest capacity of any refinery in the Near East. Other fields in southern Iran, at Lali, Agha Jari, and Gatch Saran, have been developed, with excellent potential output in each case. The northern field of Naft-i-Shah produces crude refined at Kermanshah, where the plant has a daily capacity of about 430 tons, and a pipe line connects Naft-i-Shah with the refinery. The fields of Naft Khaneh and Chia Surkh, in Irak, are just across the Iranian border from Naft-i-Shah.

White Oil Springs is another northern field, being about 10 miles south of Haft Kel. Drilling depths range from 1,500-ft. in Masjid-i-Sulaiman to 8,000-ft. in the new field of Gatch Saran.

Another refinery, at Bandar Shahpur, on the Persian Gulf, with a daily capacity of over 7,000 tons, refines some of the crude production from the Southern Iranian oilfields.



Russian and middle-eastern oil fields and refineries

Iran is reported to be infested with the inevitable Nazi "tourists," but here, again, should the Axis gain control of the country, the pipe lines and refineries would be easily destroyed by ground staffs, with the result that advancing troops, whilst finding copious supplies of crude oil, would not be able to obtain usable products without the necessary refineries.

**Arabia.**—This sector of Asia has come into the oil picture very prominently during the past few years, with the discovery of oil on Bahrein Island. The 1940 production here was over 1,000,000 tons. The oil is found at depths of 2,000-ft. to 2,250-ft. and of 4,000-ft. to 4,600-ft., with a gravity of 33.5 A.P.I. More than seventy wells have been drilled, but production is restricted owing to insufficient refinery and transport facilities. A very large refinery is operating on Bahrein and drilling on this island has assisted surveys on the Arabian mainland. Bahrein is of great strategical importance and has been bombed by Italian planes, on one occasion, so far.

Saudi Arabia has been the scene of considerable activity during recent years, and Dammam has a production of nearly 4,000 tons per day. A pipe line runs from the field to Ras Tunara, on the Persian Gulf coast.

Further up the Persian Gulf, adjoining Irak, Kuwait, an independent Sheikhdom, is the scene of oil activity. The town of Kuwait is about 110 miles across the desert from Basra, and the producing area of Burgan is about 30 miles distant from the town of Kuwait. Potential production in Kuwait is considerable, as many wells are believed to be good for over 700 tons daily production each. The oil is of 34 gravity A.P.I., and is found at depths of 3,500-ft. to 4,500-ft. Original exploratory drilling in the Bahrah area of Kuwait was abortive, after drilling had been carried down to over 8,000-ft. The Kuwait area is another indication of the potentialities of Arabia as an oil-producing country.

**Russia.**—This country is included in the discussion, as its oilfields really come into the Middle East area. Lack of definite news from Russia makes it difficult to give a complete picture of conditions of the oil industry there, but sufficient details are known to enable comparatively accurate estimates to be made.

In 1939 production of crude oil in Russia was estimated by competent observers with knowledge of Russian conditions to be about 4,433,000 tons, and 1940 should have shown an increase on this figure.

The main producing area is in the Caucasus, especially around Azerbaidjan, Mirzany, Siazan, Baku, and other fields on or near the Caspian Sea. A little further north the well-known fields of Makhachkala, Grozny, Malgobek, Hadzkinsk, and Maikop continue production, with exploratory drilling showing good indications.

Drilling in the north-east of the Ukraine, at Romny and Poltava, has resulted in production, whilst the Ural-Volga regions have been developed with satisfactory results. In the north of the Ural-Volga area, near the Barents Sea, oil has been found at Izhma Ukhta, whilst a new field at Ivanova, north-east of Moscow, has been opened. Much work has been done to increase production from the older oilfields in the Caucasus, by scientific development of old wells, and the finding of new production at lower levels, especially



in the Azerbaidjan district. Russia has control of some of the former Polish oil areas, east of the San River, in the Lemberg area.

In spite of the fact that during 1940 more than double the exploratory work of 1939 was effected, Russian oil output is reported to be well in arrears of the volume aimed at in the current Russian Oil Plan. Lack of modern equipment is really responsible for this state of affairs, and in the latter part of 1940 the Russians ordered rotary drilling equipment to a total value of over 2½ million dollars. It was the ordering of these vast quantities of equipment, with more purchases contemplated, which caused the President of the United States to insist on export licenses being obtained for the export of all drilling and general oil equipment from the States after February 3, 1941. Whilst it is known that Russia needs quantities of new drilling equipment, it is quite possible that re-export of such equipment to Germany was feared, and a curb on any such eventuality arising was effected by the new U.S. export license regulation.

The majority of the Polish estimated output of over 7,000 tons per day is under the control of the Russians, and this production would be a useful addition to the resources of the Nazis should they open the anticipated attack on Russia. There are many refineries in the oilfield areas of Lemberg (Lwow), and it is to be hoped that the Russians will effect total destruction of drilling, production, and refinery equipment in Poland should the Nazis advance there.

A drive through the Ukraine down to the Caucasus by the Nazis is expected, but the Russians would surely have plenty of time in which to destroy drilling and production equipment in the oilfields. There are pipe lines connecting Baku, on the Caspian Sea, with Batoum, on the Black Sea, with connecting lines from the southern Caspian oil area and the inland fields of Mirzany, Shiraki, etc. Another line runs from Makhachkala through Grozny, Maikop, to Tuapse, on the Black Sea, with a fork up to Trudovaya, in Eastern Ukraine, via Rostov-on-Don. The refineries at Baku, Grozny, Krasnodar (near Maikop), Odessa, and Kherson in the Caucasus and Ukraine are easily destroyed, and it is to be hoped that in the event of a German attack, the Russians will take care to render their oilfields and refineries completely useless, otherwise the Germans will gain supplies of much-needed refined products. Transportation of Russian crude from the Caucasus to Rumanian and other European refineries would occur only if the pipe lines were left

intact, and the destruction of these lines would make it virtually impossible for the Nazis to make use of the crude oil resources of Southern Russia. There are other refineries at Moscow, Seratov (on the Volga), Ura, and Orsk, which are well away from the present German-Russian frontier, as are the Ural-Caspian oilfields.

From this discussion regarding the oil resources of the Middle East the reader will appreciate that there are tremendous supplies of crude oil, which may fall into the hands of the Nazis. If, however, normal precautions are taken to destroy the many pipe lines and refineries by ground forces before evacuating areas rendered vulnerable by advancing enemy troops, the Axis Powers will lay hands on plenty of oil, as crude oil, but will be unable to transport the crude to refineries, or to build pipe lines to points from which crude may be shipped to European refineries.

The difficulties of the Nazis in the obtaining of oilfield equipment and of refinery equipment are well known, since factories for the manufacture of such equipment are not numerous in Europe. Japan was used in the last part of 1940 by the Nazis as a purchaser of drilling equipment from the States. No less than 281,437 dollars' worth of drilling equipment was bought by Japan in December, 1940, and the Japanese oil industry cannot, under any circumstances, make use of such a large quantity of material, especially when one considers that the normal Japanese purchase of this equipment is only some 60,000 dollars per year. These purchases were another factor deciding Roosevelt to issue export license regulations, and this channel of oilfield equipment supplies to the Nazis is now closed.

It is hoped that this fully detailed analysis of the oil areas of the Middle East will convince the reader that, although the Nazis may be able to conquer oil-producing countries, the use of the crude oil of such countries depends entirely upon refining facilities, and that refineries, pipe lines, and oilfields equipment—all very easily damaged—cannot be replaced by the Nazis because they have not sufficient manufacturing facilities for such materials, and the distances involved in transportation of such materials, even if available, are enormous. It would take years of untroubled effort to make use of the crude oil of the Near East, and it is hardly to be expected that we should refrain from attacking vulnerable transport points on the Nazis lines of communications, and thus permit him to develop refineries and pipe line facilities in the conquered oilfield areas.

## WELLS DRILLED AT LOWER COST

**YOU** can rely on Bucyrus-Erie water well drills to give you dependable performance that assures you of lower costs on the job. A world-wide time-proven record of successful performance on millions of jobs backs up this claim.

Whether you are drilling 100 foot wells or 4,000 foot wells, let a Bucyrus-Erie drill reduce your drilling costs and increase your production. There is a size and type to fill your every need and requirement. Investigate, write for further information today.

**Bucyrus-Erie Company**  
SOUTH MILWAUKEE • WISCONSIN • U.S.A.

